```
Val Leu Leu Ile Thr Phe Leu Gly Glu Glu Lys Lys Cys Tyr Ser Cys
Lys Gln Met Tyr Ser Phe Gln Lys Glu Ala Thr Phe Leu Leu Pro Ser
            20
Leu Phe Leu Val Ser Ser Pro Arg Leu Ala Ile Xaa Ile Gly Ile Val
         35
                             40
                                                45
Met Ala Ser Ile Leu Ser Leu Leu His Pro Tyr Leu Leu Cys Asp
                         55
Phe Ala Ala Pro Leu Ile Lys Glu Ala Glu Pro Pro Leu Pro Pro Ile
                                        75
Gly Ala Gly Phe Glu Ser Asn Arg Met Lys
                85
<210> 1020
<211> 71
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
Thr Arg Pro Ile Arg Pro Pro His Gln Ile Pro Val Asp Thr Leu Xaa
His Val Ile Asn Gln Thr Gly Gly Tyr Ser Asp Gly Leu Gly Gly Asn
                                25
Ser Leu Tyr Ser Pro His Asn Leu Asn Ala Asn Xaa Gly Trp Gln Asp
                          40
Ala Thr Thr Pro Ser Ser Val Thr Ser Pro Thr Glu Gly Pro Gly Ser
    50
                        55
                                           60
```

Val His Ser Asp Thr Ser Asn

70

<210> 1021 <211> 301 <212> PRT <213> Homo sapiens <400> 1021 Pro Thr Pro Pro Thr Pro Ile Arg Thr Ala Ala Gln Arg Arg Glu Ile 5 Trp Asp Phe Pro Gly Gln Ile Asp Phe Phe Asp Pro Thr Phe Asp Tyr Glu Met Ile Phe Arg Gly Thr Gly Ala Leu Ile Phe Val Ile Asp Ser 40 Gln Asp Asp Tyr Met Glu Ala Leu Ala Arg Leu His Leu Thr Val Thr Arg Ala Tyr Lys Val Asn Thr Asp Ile Asn Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala Asp Ala Gly Leu Glu Lys 105 Ile His Leu Ser Phe Tyr Leu Thr Ser Ile Tyr Asp His Ser Ile Phe 115 Glu Ala Phe Ser Lys Val Val Gln Lys Leu Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser Asn Ser Gly Ile Glu Lys 150 155 Ala Phe Leu Phe Asp Val Val Ser Lys Ile Tyr Ile Ala Thr Asp Ser 165 Thr Pro Val Asp Met Gln Thr Tyr Glu Leu Cys Cys Asp Met Ile Asp 185 Val Val Ile Asp Ile Ser Cys Ile Tyr Gly Leu Lys Glu Asp Gly Ala

Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala Ile Ile Lys Leu Asn Asn

Thr Thr Val Leu Tyr Leu Lys Glu Val Thr Lys Phe Leu Ala Leu Val

220

215

225 230 235 240 Cys Phe Val Arg Glu Glu Ser Phe Glu Arg Lys Gly Leu Ile Asp Tyr 245 250 Asn Phe His Cys Phe Arg Lys Ala Ile His Glu Val Phe Glu Val Arg 265 Met Lys Val Val Lys Ser Arg Lys Val Gln Asn Arg Leu Gln Lys Lys 280 Lys Arg Ala Thr Pro Asn Gly Thr Pro Arg Val Leu Leu 290 295 <210> 1022 <211> 36 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids Thr Ala Asn Arg Gly Ser Ser Ala Ser Xaa Lys Ala Asp Ser Gly Leu 5 Ala Gln Ser Asp Gly Arg Asp Pro Pro Thr Leu Trp Gly Trp Ser Leu 25 His Leu Ala Leu 35 <210> 1023 <211> 173 <212> PRT <213> Homo sapiens <400> 1023 Ile Arg Glm Ser Ser Arg Glu Arg Ile Trp Arg Pro Pro Leu Trp Ile Leu Ala Arg Pro Gly Ser Ala Val Ala Val Arg Ala Gly Phe Pro Thr 20 25

Pro Cys Arg Pro Pro Ser Leu Ser Ala Leu Ser Pro Ser Ala Ser Gln

35 40 45

Pro Cys Ser Arg Arg Arg Thr Gly Leu Ser Pro Gly Ser Trp Gly Trp 50 55 60

Pro Pro Ser Thr Arg Ser Ala Cys Phe Leu Thr Cys Leu Ser Ser Arg 65 70 75 80

Ser Tyr Arg Leu Gln Ile Gly His Phe Leu Cys Leu Val Ile Leu Val 85 90 95

Tyr Cys Ala Glu Tyr Ile Asn Glu Ala Ala Ala Met Asn Trp Arg Leu $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Phe Ser Lys Tyr Gln Tyr Phe Asp Ser Arg Gly Met Phe Ile Ser Ile 115 120 125

Val Phe Ser Ala Pro Leu Leu Val Asn Ala Met Ile Ile Val Val Met 130 135 140

Trp Val Trp Lys Thr Leu Asn Val Met Thr Asp Leu Lys Asn Ala Gln 145 150155155

Glu Arg Arg Lys Glu Lys Lys Arg Arg Arg Lys Glu Asp 165 170

<210> 1024

<211> 73

<212> PRT

<213> Homo sapiens

<220> <221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1024

Ala Trp Gly Ala Ala Arg Arg Gly Arg Gln Arg Pro Cys Pro Leu Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ala Gly Arg Thr Glu Phe Trp Pro Xaa Cys Glu Gly Lys Ala Glu Ala 20 25 30

Cys Xaa Gly Xaa Trp Phe Lys Leu Xaa Gly Gln Gly Lys Gly Arg Gly 35 40 45

Glu Trp Phe Ser Arg Ser Arg Leu Cys Ser Arg Trp Thr Leu Glu $50 \\ ~~55 \\ ~~60$

Asn Lys Gly Glu Ser Ser Arg Glu Gln 65 70

<210> 1025

<211> 171

<212> PRT

<213> Homo sapiens

<400> 1025

Leu Leu Pro Glu Thr Ala Leu Leu Asn Met Arg Ala Ala Pro Leu Leu 1 5 10 15

Leu Ala Arg Ala Ala Ser Leu Ser Leu Gly Phe Leu Phe Leu Leu Phe 20 25 30

Phe Trp Leu Asp Arg Ser Val Leu Ala Lys Glu Leu Lys Phe Val Thr 35 40 45

Leu Val Phe Arg His Gly Asp Arg Ser Pro Ile Asp Thr Phe Pro Thr

Asp Pro Ile Lys Glu Ser Ser Trp Pro Gln Gly Phe Gly Gln Leu Thr 65 70 75 80

Gln Leu Gly Met Glu Gln His Tyr Glu Leu Gly Glu Tyr Ile Arg Lys 85 90 95

Arg Tyr Arg Lys Phe Leu Asn Glu Ser Tyr Lys His Glu Gln Val Tyr 100 105 110

Ile Arg Ser Thr Asp Val Asp Arg Thr Leu Met Ser Ala Met Thr Asn \$115\$ \$120\$ \$125\$

Leu Ala Ala Leu Phe Pro Pro Glu Gly Val Ser Ile Trp Asn Pro Ile

130 140 135 Leu Leu Trp Gln Pro Ile Pro Val His Thr Val Pro Leu Ser Glu Asp 145 150 155 Gln Leu Leu Tyr Leu Thr Phe Gln Glu Leu Pro 165 170 <210> 1026 <211> 238 <212> PRT <213> Homo sapiens <400> 1026 Ala Asn Trp Asp Leu Glu Met Ile Leu Arg Cys Ser Ser Asn Asp Leu Glu Leu Leu Gln Ala Glu His Gly Ile Leu Lys Ile Gly Glu Thr Asn Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val Tyr Glu Thr Tyr Glu 35 40 Leu Val Glu Lys Phe Tyr Asp Pro Met Phe Lys Tyr His Leu Thr Val Ala Gln Val Arg Gly Gly Met Val Phe Glu Leu Ala Asn Ser Ile Val Leu Pro Phe Asp Cys Arg Asp Tyr Ala Val Val Leu Arg Lys Tyr Ala 90 Asp Lys Ile Tyr Ser Ile Ser Met Lys His Pro Gln Glu Met Lys Thr 100 105 Tyr Ser Val Ser Phe Asp Ser Leu Phe Ser Ala Val Lys Asn Phe Thr Glu Ile Ala Ser Lys Phe Ser Glu Arg Leu Gln Asp Phe Asp Lys Ser 135 Asn Pro Ile Val Leu Arg Met Met Asn Asp Gln Leu Met Phe Leu Glu 145 150

His Val Ile Tyr Ala Pro Ser Ser His Asn Lys Tyr Ala Gly Glu Ser 180 185 190

Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg

170

Phe Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile Glu Ser Lys Val Asp 195

Pro Ser Lys Ala Trp Gly Glu Val Lys Arg Gln Ile Tyr Val Ala Ala 215

Phe Thr Val Gln Ala Ala Ala Glu Thr Leu Ser Glu Val Ala 225 230 235

<210> 1027

<211> 132 <212> PRT

<213> Homo sapiens

<400> 1027

Gly Pro Thr Thr Lys Phe Ala Ala Arg Arg Gln Gly Val Leu Leu

Ile Thr Met Asn Val Leu Leu Gly Ser Val Val Ile Phe Ala Thr Phe 25

Val Thr Leu Cys Asn Ala Ser Cys Tyr Phe Ile Pro Asn Glu Gly Val 35

Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His 50 55

Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys

Tyr Glu Thr Glu Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly

Tyr Asp Lys Asp Asn Cys Gln Arq Ile Phe Lys Lys Glu Asp Cys Lys 100

Tyr Ile Val Val Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser 120 115 125

Glu Trp Ile Ile

130

<210> 1028

<211> 116 <212> PRT

<213> Homo sapiens

<220> <221> SITE <222> (41) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (111) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1028 Ser Leu Thr Ser Cys Ile Leu Glu Ile Leu Gln Ser Leu Ser Tyr Ser Tyr Gln Asn Ser Cys Arg Pro Leu Thr Pro Asp Ser Pro Cys Leu Gln 20 3.0 25 Cys Pro Pro Ala Cys Arg Gly Gly Xaa Val Thr Ala Thr Leu Ser His 40 Gln Leu Phe Ser Ile Cys Arg Pro Ser Trp Gly Arg Val Pro Ser Ser Cys Ser Pro Cys Leu Trp Glu Lys Ser His Val Leu Phe Ile Ser Pro 70 75 His Cys Thr Leu Ser Leu Thr Leu Asp Tyr Asn Ser Ser Glu Phe Asp 85 90 Leu His Leu Leu Asp Lys Pro Gly Thr Val Leu Gly Ile Met Xaa Thr 100 105 Ile Arg Gln Ile 115 <210> 1029 <211> 216 <212> PRT <213> Homo sapiens <400> 1029 Thr Leu Lys Ser Glu Glu Phe Gln Lys Arg Leu His Pro Tyr Lys Asp Phe Ile Ala Thr Leu Gly Lys Leu Ser Gly Leu His Gly Gln Asp Leu 20 30

20 25 30

Phe Gly Ile Trp Ser Lys Val Tyr Asp Pro Leu Tyr Cys Glu Ser Val

35 40 45

His Asn Phe Thr Leu Pro Ser Trp Ala Thr Glu Asp Thr Met Thr Lys 50

Leu Arg Glu Leu Ser Glu Leu Ser Leu Leu Ser Leu Tyr Gly Ile His 65 70 75 80

Lys Gln Lys Glu Lys Ser Arg Leu Gln Gly Gly Val Leu Val Asn Glu 85 90 95

Ile Leu Asn His Met Lys Arg Ala Thr Gln Ile Pro Ser Tyr Lys Lys $100 \hspace{1cm} 105 \hspace{1cm} 110$

Leu Ile Met Tyr Ser Ala His Asp Thr Thr Val Ser Gly Leu Gln Met 115 \$120\$

Ala Leu Asp Val Tyr Asn Gly Leu Leu Pro Pro Tyr Ala Ser Cys His 130 135 140

Leu Thr Glu Leu Tyr Phe Glu Lys Gly Glu Tyr Phe Val Glu Met Tyr 145 \$150\$ 155 160

Tyr Arg Asn Glu Thr Gln His Glu Pro Tyr Pro Leu Met Leu Pro Gly 165 170 175

Cys Ser Pro Ser Cys Pro Leu Glu Arg Phe Ala Glu Leu Val Gly Pro $180 \,$ $\,$ $185 \,$ $\,$ $\,$ $190 \,$

Val Ile Pro Gln Asp Trp Ser Thr Glu Cys Met Thr Thr Asn Ser His $195 \hspace{1.5cm} 200 \hspace{1.5cm} 205 \hspace{1.5cm}$

Gln Gly Thr Glu Asp Ser Thr Asp 210 215

<210> 1030

<211> 41

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1030

His His Ala Trp Leu Ile Phe Leu Ile Xaa Ile Phe Ser Arg Asp Lys 1 5 10 15

```
Val Ala Leu Cys Cys Pro Gly Trp Tyr Gly Thr Pro Val Leu Lys Arg
                                 25
Ser Ser Cys Leu Gly Phe Pro Lys Cys
        35
<210> 1031
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1031
Pro Gly Trp Ser Gln Ser Xaa Gly Leu Arg Pro Ser Phe His Leu Ile
Leu Pro Lys Asn Trp Asp Tyr Arg His Glu Gln Leu His Leu Val His
             20
                                 25
Met Leu Leu Ile Val Glu Glu Val Lys Gly Gln
        35
                             40
<210> 1032
<211> 63
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1032
Gln Gly Phe Trp His Gln Leu Glu Ile Leu Trp Met Asp Val Leu Pro
 1
                 5
                                     10
Trp Ser Phe Tyr Phe Asn Val Leu Thr Thr Tyr Asp Ser Ser Ile Cys
Ser Ile Asn Tyr Ile His Tyr His Ser Asn Ser His His Leu Ile Cys
                            40
Ile Xaa Tyr Leu Ile Leu Pro Ser Asn Tyr Gly Ile Ser Asp Leu
```

50 55 60

<210> 1033

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1033

Lys Leu Cys Met Lys Thr Gly Gly Lys His Ser Val Ile Arg Tyr Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Asn Ile Lys Thr Thr Lys Thr Asn Asp Lys Asn Val Tyr Phe Tyr $20 \ 25 \ 30$

Thr Pro Ala Tyr Arg Val Ser Phe Arg Asp Val Tyr Glu Tyr Leu Asn $35 \hspace{1cm} 40 \hspace{1cm} 45$

<210> 1034

<211> 113

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1034

Val Asn Leu Ala Cys Gly Ala Pro Leu Lys Cys Glu Asp Leu Ala Xaa 1 5 10 15

Trp Leu Lys Ile Lys Leu Gly Phe Val Leu Asn Ile Leu Ala Gly Pro 20 25 30 Ile Ile His Lys Lys Arg Gly His Ser Pro Phe Ala Arg Leu Leu Asn \$35\$

Glu Leu His Ser Phe Cys Thr Trp Lys Cys Leu Phe Ser His Lys Lys $50 \hspace{1cm} 55$

Asn Asn Ser Tyr Asn Leu Ile Ser Leu Val Pro Tyr Gln Gln Lys Lys 65 70 75 80

Ser Gln Glu Thr Ile Met Lys Thr Leu Val Ser Ser Leu Gly Asp Tyr $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ile Met Leu Xaa Ser Leu Ile Ile Xaa Leu Tyr Leu As
n Lys Tyr Ile 100 105 110 $\,$

Phe

<210> 1035

<211> 143

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1035

Gly Leu Arg Asp Leu Asp Ser Asn Pro Arg Ala Leu Ser Cys Tyr Ser $1 \ 5 \ 10 \ 15$

Gly Val Ser Thr Val Arg Xaa Gly Pro Gly Ala Leu Ser His His Leu
20 25 30

Pro Arg Pro Arg Asp His His Pro Leu Lys Arg Gly Pro Ser Pro Leu 35 40 45

Ser Thr Pro Ser Arg Asp Pro Ala Leu Gly Cys Ser Arg Leu Thr Ala 50 55 60

His Gly Val Leu Phe Trp Ala Thr Ala Ala Arg Ala Pro Gly Arg Gly 65 70 75 80

```
Xaa Gly Thr Pro Glu Asn Thr Pro Leu Phe Met Val Leu Cys Pro Phe
Ile Arg Arg Leu Leu Lys Asn Trp Ala Val Cys Lys Ala Asn Pro Ala
                                105
Pro Cys Pro Ser Arg Phe Ser Glu Arg Gly Val Pro Trp Glu Trp Ser
        115
                            120
Cys Ser Pro His Gly Ser Thr Thr Phe Pro Val Pro Arg Cys His
    130
                       135
<210> 1036
<211> 122
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (81)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1036
Glu His Ile Trp Leu Ser Ile Trp Asp Arg Pro Pro Arg Ser Cys Phe
Thr Arg Ile Gln Arg Ala Thr Cys Cys Val Leu Leu Ile Cys Leu Phe
             20
                                 25
Leu Gly Ala Asn Ala Val Trp Tyr Gly Ala Val Gly Asp Ser Ala Tyr
         35
```

Ser Thr Gly Xaa Val Ser Arg Leu Xaa Pro Leu Ser Val Asp Thr Val 55

Ala Val Gly Leu Val Ser Ser Val Val Val Tyr Pro Val Tyr Leu Ala 65 70 . 75 Xaa Leu Phe Leu Phe Xaa Met Ser Arg Ser Lys Val Ile Asn Thr Leu 85 90 Ala Asp His Arg His Arg Gly Thr Asp Phe Gly Gly Ser Pro Trp Leu 105 Leu Ile Ile Asn Cys Val Ser Glu Lys Leu 115 <210> 1037 <211> 29 <212> PRT <213> Homo sapiens <400> 1037 Thr Pro Gly Leu Lys Gln Ser Phe Cys Leu Gly Pro Pro Lys Cys Trp Asp Cys Gly His Glu Leu Leu Cys Pro Ala Ser Met Phe 20 <210> 1038 <211> 104 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (88) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (100) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1038 Glu Thr Ala Arg Gly Thr Gly Arg Asn Gly Leu Ser Ala Leu Asn His 5 10 His Lys Pro Trp Leu Arg Lys Gly His Ala Ser Pro Ser Arg Arg Met

25

Thr Pro Ile Arg Asp Pro Gln Arg Arg Cys Met Ser Ile Leu Ala Pro \$35\$ \$40\$ \$45\$

Arg Ala Val Met Gln Pro Ala Arg Ser Gln Gly Glu Gly Thr Gln Lys 50

Pro Gly Met Leu Ala Lys Gly Val Lys Glu Thr Phe Glu Leu Phe Thr 65 70 75 80

Ala Cys Ser Asn Tyr Val Lys Xaa Thr Pro Leu Asn Lys Ile Trp Ser

Met Phe Val Xaa Leu Tyr Leu Ile 100

<210> 1039

<211> 156

<212> PRT

<213> Homo sapiens

<400> 1039

Gly His Met Glu Leu Ala Met Asp Asn Ser Tyr Ala Phe Asn Gln Arg $1 \hspace{1.5cm} 1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Thr Cys Asn Gly Ile Pro Ser Glu Lys Lys Asn Asn Phe Leu Val $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Ser Glu Asp His Gly Gln Lys Ile Leu Ser Val Leu Gln Asn Phe Arg $35 \hspace{1cm} 40 \hspace{1cm} 45$

Glu Gln Asn Val Phe Tyr Asp Phe Lys Ile Ile Met Lys Asp Glu Ile 50 60

Ile Pro Cys His Arg Cys Val Leu Ala Ala Cys Ser Asp Phe Phe Arg 65 70 75 80

Ala Met Phe Glu Val Asn Met Lys Glu Arg Asp Asp Gly Ser Val Thr \$85\$ 90 95

Ile Thr Asn Leu Ser Ser Lys Ala Val Lys Ala Phe Leu Asp Tyr Ala

Tyr Thr Gly Lys Thr Lys Ile Thr Asp Asp Asn Val Glu Met Phe Phe 115 120 125

Gln Leu Ser Ser Phe Leu Gln Val Ser Phe Leu Ser Lys Ala Cys Ser 130 135 140

Asp Phe Leu Ile Lys Ser Ile Asn Leu Glu Lys Lys

WO 00/55174 852 PCT/US00/05988

145 150 155 <210> 1040 <211> 85 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1040 Pro Ser Pro Cys Pro Cys Ser Cys Ala Trp Val Arg Trp Pro Arg Arg 5 10 Thr Pro Pro Ser Arg Thr Thr Arg Ala Arg Thr His Gln Xaa Arg Asp 20 25 Met Ala Arg Tyr Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr 40 Arg Gln Arg Tyr Gly Lys Arg Ser Ser Pro Glu Thr Leu Ile Ser Asp Leu Leu Met Arg Glu Ser Thr Glu Asn Val Pro Arg Thr Arg Leu Glu 75 Asp Pro Ala Met Trp <210> 1041 <211> 234 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (64) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1041 Leu Gly Gln Tyr Gln Pro Ala Arg Glu Glu Ile Ser Lys Asp Leu Arg

Ala Thr Leu Asn Ala Phe Leu Tyr His Met Gly Gln His Ser Asn Lys

25

Phe Met Leu Val Leu Ala Ser Asn Leu Pro Glu Gln Phe Asp Cys Ala 35 40 45

Ile Asn Ser Arg Ile Asp Val Met Val His Phe Asp Leu Pro Gln Xaa 50 60

Glu Glu Arg Glu Arg Leu Val Arg Leu His Phe Asp Asn Cys Val Leu 65 70 75 80

Lys Pro Ala Thr Glu Gly Lys Arg Arg Leu Lys Leu Ala Gln Phe Asp \$85\$ 90 95

Tyr Gly Arg Lys Cys Ser Glu Val Ala Arg Leu Thr Glu Gly Met Ser 100 105 110

Gly Arg Glu Ile Ala Gln Leu Ala Val Ser Trp Gln Ala Thr Ala Tyr \$115\$ \$120\$ \$125\$

Ala Ser Lys Asp Gly Val Leu Thr Glu Ala Met Met Asp Ala Cys Val 130 \$135\$

Gln Asp Ala Val Gln Gln Tyr Arg Gln Lys Met Arg Trp Leu Lys Ala 145 \$150\$

Glu Gly Pro Gly Arg Gly Val Glu His Pro Leu Ser Gly Val Gln Gly 165 170 175

Glu Thr Leu Thr Ser Trp Ser Leu Ala Thr Asp Pro Ser Tyr Pro Cys $180 \hspace{1cm} 185 \hspace{1cm} 190 \hspace{1cm}$

Leu Ala Gly Pro Cys Thr Phe Arg Ile Cys Ser Trp Met Gly Thr Gly 195 \$200\$

Leu Cys Pro Gly Pro Leu Ser Pro Arg Met Ser Cys Gly Gly Gly Arg 210 215 220

Pro Phe Cys Pro Pro Gly His Pro Leu Leu 225 230

<210> 1042 <211> 63

<211> 63

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1042
Ala Asn Leu Met Lys Cys Lys Val Gln Ala Gly Met Ile Xaa Ser Val
1
1
10
15

Cys Lys Asp Lys Ser Phe Asp Asp Glu Glu Ser Val Asp Gly Asn Arg \$20\$

Pro Ser Ser Ala Ala Ser Ala Phe Lys Val Pro Ala Leu Lys His Pro 35 40 45

Glu Ile Leu Pro Thr Val Gln Gly Ser Trp Phe Ser Arg Trp Pro 50 60

<210> 1043

<211> 64 <212> PRT

<213> Homo sapiens

<400> 1043

Gln Leu Arg Ser Arg Ala Gly Leu Leu Ser Ser Thr Val Arg Ala Arg 1 5 10 15

Asn Trp Pro Gln Asn Pro Gln Ser Gln Pro Trp Gly Pro Leu Gly Pro

Gln Thr Pro Val Phe Ser Phe Cys Val Ala Ser Trp Phe Pro Gly Val \$35\$

Leu Phe Tyr Ala Ala Ser Gly Val Arg Ser Ser Ala Phe Asn Leu Phe $50 \hspace{1cm} 55 \hspace{1cm} 60$

<210> 1044

<211> 97

<212> PRT

<213> Homo sapiens

<400> 1044

Ala Ser Arg Ser Leu Pro Thr Ala Ala Val His Val Arg Leu Leu Pro $1 \hspace{1cm} 1 \hspace{1cm} 15$

Leu Cys Ala Glu Arg Gln Glu Asp His Glu Asn Asp Pro Leu Ser Glu 20 25 30

```
Leu Gln Arg Gln Ile Ala Gln Pro Glu Met Arg Cys Thr Ile Arg Leu
                             40
Leu Asp Asp Ser Glu Ile Ser Cys His Ile Gln Arg Glu Thr Lys Gly
Gln Phe Leu Ile Asp His Ile Cys Asn Tyr Tyr Ser Leu Leu Glu Lys
 65
                                        75
Asp Tyr Phe Gly Ile Arg Tyr Val Asp Pro Glu Lys Gln Arg His Trp
                 85
                                    90
Ala
<210> 1045
<211> 43
<212> PRT
<213> Homo sapiens
<400> 1045
Thr Leu Ile Phe Pro Pro Leu Arg Ile Ile Asn Phe Leu Ser Phe Tyr
His Ile Cys Phe Arg Ser Phe Phe Phe Leu Lys Lys Ser Ile Thr Asp
                                25
Leu Ala Lys Val Pro Phe Asp Gln Tyr Pro Thr
         35
                            40
<210> 1046
<211> 221
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (182)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<222> (186) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (209) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (212) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (214) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1046 Arg Ser Gly Arg Leu Arg Leu Ser Leu Tyr Cys Gly Ala Gly Gln Gly Val Arg Ala Gly Arg Gly Thr Gly Thr Pro Ala Val Xaa Gly Arg Leu 20 25 Glu Ile Met Glu Gly Lys Trp Leu Leu Cys Met Leu Leu Val Leu Gly 35 Thr Ala Ile Val Glu Ala His Asp Gly His Asp Asp Asp Val Ile Asp Ile Glu Asp Asp Leu Asp Asp Val Ile Glu Glu Val Glu Asp Ser Lys 70 Pro Asp Thr Thr Ala Pro Pro Ser Ser Pro Lys Val Thr Tyr Lys Ala 85 90 Pro Val Pro Thr Gly Glu Val Tyr Phe Ala Asp Ser Phe Asp Arg Gly 100 105 Thr Leu Ser Gly Trp Ile Leu Ser Lys Ala Lys Lys Asp Asp Thr Asp 120 Asp Glu Ile Ala Lys Tyr Asp Gly Lys Trp Glu Val Glu Glu Met Lys 130 135 Glu Ser Lys Leu Pro Gly Asp Lys Gly Leu Val Leu Met Ser Arg Ala 145 150 Lys His His Ala Ile Ser Ala Lys Leu Asn Lys Pro Phe Leu Phe Asp 165 170 175

Thr Lys Pro Leu Ile Xaa Gln Tyr Glu Xaa Asn Phe Gln Asn Gly Ile 180 \$180\$

Glu Cys Gly Gly Ala Tyr Val Lys Leu Leu Ser Lys Thr Pro Glu Leu 195 200 205

Xaa Leu Asp Xaa Val Xaa Arg Thr Ile Asn Cys Leu His 210 215 220

<210> 1047

<211> 82

<212> PRT

<213> Homo sapiens

<400> 1047

Gly Ile Pro Pro His Phe Cys Gly Phe Phe Pro Val Val Asp Asp Gln $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gly Trp Asn Leu Gln Ser Met Gly Pro Asp Phe Leu Pro Ser Ser Gln 20 25 30

Ile Asp Ser Ala Ala Ser His Leu Cys Ser Ala Pro Val Ala Leu Lys \$35\$ \$40\$ \$45\$

Cys Asn Arg Asn His His Pro Arg Thr Met Gly Ser Met Pro Val Gly 50 60

Lys Ala Gln Val Arg Ser Leu Ser Ser Gln His Ile Ala Val Ala Gly $65 \ \ \, 70 \ \ \, 75 \ \ \, 80$

Thr Trp

<210> 1048

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> l048
Pro Gly Ser Pro Asp Gln Arg Pro Thr Pro Gln Gly Glu Phe Ile Leu
1 5 10 15

Cys Gln Gln Gln Ser Phe Pro Ser Ser Glu Ala Ser His Pro His Pro 20 25 30

Arg Arg Gln Gly Lys Gln Ala Arg Gly Gly Gln Glu Ser Ser Gln Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Ser Glu Ala Ala Pro Pro Ala Pro Lys His Leu Pro Cys Ser Gln Leu 50 55 60

Xaa Xaa Gln Leu Leu Pro Ala Ala Lys Xaa Thr Ala Ala Phe Arg Leu 65 70 75 80

Thr Ser Met Pro Leu 85

<210> 1049 <211> 75

<212> PRT

<213> Homo sapiens

<400> 1049

Ser Pro Cys Arg Glu Glu Ser Gln Gln Ile Ile Ser Lys Leu Glu Asn $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gln Glu Ile Thr Val Ile Ile Arg Asp Ile Trp Gly Gly Tyr Lys Tyr
20 25 30

Gln Asn Lys Lys Ile Lys Glu Met Lys Ile Val Val Ser Gly Glu Leu 35 40 45

Lys Ser Lys Ile Gln Arg Cys Glu Ala Asp Leu Ile Tyr Tyr Leu Thr $50 \ \ 55 \ \ 60$

Cys Ile Leu Phe Ile Ala Gln Tyr Ser Val Phe 65 70 75

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<210> 1050
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids
Gly Lys Lys Ile Lys Lys Leu Ala Ser Ala Xaa Arg Gly Gly Ser Leu
Pro Val Ile Pro Ala Leu Ser Ala Ala Glu Ala Ser Gly Ser Leu Glu
Val Xaa Ser Ser Lys Thr Ser Leu Gly Gln Thr
<210> 1051
<211> 341
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (101)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1051
Gly Pro Gln Glu Met Thr Ala Gly Gly Gln Ala Glu Ala Glu Gly Ala
 1
                  5
Gly Glu Pro Gly Ala Ala Arg Leu Pro Ser Arg Val Ala Arg Leu
            20
Leu Ser Ala Leu Phe Tyr Gly Thr Cys Ser Phe Leu Ile Val Leu Val
Asn Lys Ala Leu Leu Thr Thr Tyr Gly Phe Pro Ser Pro Ile Phe Leu
                        55
                                           60
Gly Ile Gly Gln Met Ala Ala Thr Ile Met Ile Leu Tyr Val Ser Lys
```

65					70					75					80
Leu	Asn	Lys	Ile	11e 85		Phe	Pro	Asp	Phe 90		Lys	Lys	Ile	Pro 95	Val
Lys	Leu	Phe	Pro 100		Pro	Leu	Leu	Tyr 105		Gly	Asn	His	11e 110		Gly
Leu	Ser	Ser 115		Ser	Lys	Leu	ser 120	Leu	Pro	Met	Phe	Thr 125	Val	Leu	Arg
Lys	Phe 130	Thr	Ile	Pro	Leu	Thr 135	Leu	Leu	Leu	Glu	Thr 140	Ile	Ile	Leu	Gly
Lys 145	Gln	Tyr	Ser	Leu	Asn 150	Ile	Ile	Leu	Ser	Val 155	Phe	Ala	Ile	lle	Leu 160
Gly	Ala	Phe	Ile	Ala 165	Ala	Gly	Ser	Asp	Leu 170	Ala	Phe	Asn	Leu	G1u 175	Gly
Tyr	Ile	Phe	Val 180	Phe	Leu	Asn	Asp	11e 185	Phe	Thr	Ala	Ala	Asn 190	Gly	Val
Tyr	Thr	Lys 195	Gln	Lys	Met	Asp	Pro 200	Lys	Glu	Leu	Gly	Lys 205	Tyr	Gly	val
Leu	Phe 210	Tyr	Asn	Ala	Cys	Phe 215	Met	Ile	Ile	Pro	Thr 220	Leu	Ile	Ile	Ser
Val 225	Ser	Thr	Gly	Asp	Leu 230	Gln	Gln	Ala	Thr	G1u 235	Phe	Asn	Gln	Trp	Lys 240
Asn	Val	Val	Phe	11e 245	Leu	Gln	Phe	Leu	Leu 250	Ser	Cys	Phe	Leu	Gly 255	Phe
Leu	Leu	Met	Tyr 260	Ser	Thr	Val	Leu	Cys 265	Ser	Tyr	Tyr	Asn	Ser 270	Ala	Leu
Thr	Thr	Ala 275	Val	Val	Gly	Ala	Ile 280	Lys	Asn	Val	Ser	Val 285	Ala	Tyr	Ile
	Ile 290	Leu	Ile	Gly	Gly	Asp 295	Tyr	Ile	Phe	Ser	Leu 300	Leu	Asn	Phe	Val
Gly 305	Leu	Asn	Ile	Cys	Met 310	Ala	Gly	Gly	Leu	Arg 315	Tyr	Ser	Phe	Leu	Thr 320
Leu	Ser	Ser	Gln	Leu 325	Lys	Pro	Lys		Val 330	Gly	Glu	Glu	Asn	11e 335	Cys

Leu Asp Leu Lys Ser

WO 00/55174 861 PCT/US00/05988

340

20

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<210> 1052
<211> 85
<212> PRT
<213> Homo sapiens
<400> 1052
Pro Ala Ala Arg Ala Ala Thr Asp Ser Val Ser Ala Ile Phe Asp Lys
                                     10
Gly Lys Lys Val Arg Glu Ser Phe Gln Ala Leu Gly Arg Ile Ile Phe
             20
                                2.5
                                                     30
Phe Gln Asp Ala Val Phe Arg Thr Phe Val Ile Lys His Thr Ala Gln
        35
                             40
Val Ile Thr Gly Ile Asp Ser Asp Ile Arg His Leu Ser Leu Ala Leu
Leu Lys Asn Gly Gly Asn Val Ile Ser Trp Ala Gly Val Gly Cys Asn
 65
                     70
                                        75
Pro Glu Val Pro Leu
                 85
<210> 1053
<211> 724
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (87)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (680)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1053
Val Asp Ser Glu Ser Ala Ser Val Val Gly Lys Arg Pro Pro Phe His
                                    1.0
Gly Thr Pro Ser Thr Met Ser Ser Pro Ala Ser Thr Pro Ser Arg Arg
```

2.5

Gly Ser Arg Arg Gly Arg Ala Thr Pro Ala Gln Thr Pro Arg Ser Glu 35 40 Asp Ala Arg Ser Ser Pro Ser Gln Arg Arg Gly Glu Asp Ser Thr 55 60 Ser Thr Gly Glu Leu Gln Pro Met Pro Thr Ser Pro Gly Val Asp Leu Gln Ser Pro Ala Ala Gln Xaa Val Leu Phe Ser Ser Pro Pro Gln Met 90 His Ser Ser Ala Ile Pro Leu Asp Phe Asp Val Ser Ser Pro Leu Thr 100 105 110 Tyr Gly Thr Pro Ser Ser Arg Val Glu Gly Thr Pro Arg Ser Gly Val 115 120 Arg Gly Thr Pro Val Arg Gln Arg Pro Asp Leu Gly Ser Ala Gln Lys 135 Gly Leu Gln Val Asp Leu Gln Ser Asp Gly Ala Ala Ala Glu Asp Ile 145 150 155 Val Ala Ser Glu Gln Ser Leu Gly Gln Lys Leu Val Ile Trp Gly Thr 165 170 Asp Val Asn Val Ala Ala Cys Lys Glu Asn Phe Gln Arg Phe Leu Gln 185 Arg Phe Ile Asp Pro Leu Ala Lys Glu Glu Glu Asn Val Gly Ile Asp 200 Ile Thr Glu Pro Leu Tyr Met Gln Arg Leu Gly Glu Ile Asn Val Ile 210 Gly Glu Pro Phe Leu Asn Val Asn Cys Glu His Ile Lys Ser Phe Asp 230 235 Lys Asn Leu Tyr Arg Gln Leu Ile Ser Tyr Pro Gln Glu Val Ile Pro 250 Thr Phe Asp Met Ala Val Asn Glu Ile Phe Phe Asp Arg Tyr Pro Asp 260 Ser Ile Leu Glu His Gln Ile Gln Val Arg Pro Phe Asn Ala Leu Lys 275 Thr Lys Asn Met Arg Asn Leu Asn Pro Glu Asp Ile Asp Gln Leu Ile

295

300

Thr 305		Ser	Gly	Met	Val 310	Ile	Arg	Thr	Ser	Gln 315	Leu	Ile	Pro	Glu	Met 320
Gln	Glu	Ala	Phe	Phe 325	Gln	Cys	Gln	Val	Cys 330	Ala	His	Thr	Thr	Arg 335	Val
Glu	Met	Asp	Arg 340	Gly	Arg	Ile	Ala	G1u 345	Pro	Ser	Val	Cys	Gly 350	Arg	Cys
His	Thr	Thr 355	His	Ser	Met	Ala	Leu 360	Ile	His	Asn	Arg	Ser 365	Leu	Phe	Ser
Asp	Lys 370	Gln	Met	Ile	Lys	Leu 375	Gln	Glu	Ser	Pro	Glu 380	Asp	Met	Pro	Ala
Gly 385	Gln	Thr	Pro	His	Thr 390	Val	Ile	Leu	Phe	Ala 395	His	Asn	Asp	Leu	Val 400
Asp	Lys	Val	Gln	Pro 405	Gly	Asp	Arg	Val	Asn 410	Val	Thr	Gly	Ile	Tyr 415	Arg
Ala	Val	Pro	11e 420	Arg	Val	Asn	Pro	Arg 425	Val	Ser	Asn	Val	Lys 430	Ser	Val
Tyr	Lys	Thr 435	His	Ile	Asp	val	11e 440	His	Tyr	Arg	Lys	Thr 445	Asp	Ala	Lys
Arg	Leu 450	His	Gly	Leu	Asp	Glu 455	Glu	Ala	Glu	Gln	Lys 460	Leu	Phe	Ser	Glu
Lys 465	Arg	Val	Glu	Leu	Leu 470	Lys	Glu	Leu	Ser	Arg 475	Lys	Pro	Asp	Ile	Tyr 480
Glu	Arg	Leu	Ala	Ser 485	Ala	Leu	Ala	Pro	Ser 490	Ile	Tyr	Glu	His	Glu 495	Asp
Ile	Lys	Lys	Gly 500	Ile	Leu	Leu	Gln	Leu 505	Phe	Gly	Gly	Thr	Arg 510	Lys	Asp
Phe	Ser	His 515	Thr	Gly	Arg	Gly	Lys 520	Phe	Arg	Ala	Glu	11e 525	Asn	Ile	Leu
Leu	Cys 530	Gly	Asp	Pro	Gly	Thr 535	Ser	Lys	Ser	Gln	Leu 540	Leu	Gln	Tyr	Val
Tyr 545	Asn	Leu	Val	Pro	Arg 550	Gly	Gln	Tyr	Thr	Ser 555	Gly	Lys	Gly	Ser	Ser 560
Ala	Val	Gly	Leu	Thr 565	Ala	Tyr	Val	Met	Lys 570	Asp	Pro	Glu	Thr	Arg 575	Gln

Leu Val Leu Gln Thr Gly Ala Leu Val Leu Ser Asp Asn Gly Ile Cys 580 585 590

Cys Ile Asp Glu Phe Asp Lys Met Asn Glu Ser Thr Arg Ser Val Leu 595 600 605

His Glu Val Met Glu Gln Gln Thr Leu Ser Ile Ala Lys Ala Gly Ile

Ile Cys Gln Leu Asn Ala Arg Thr Ser Val Leu Ala Ala Ala Asn Pro 625 630 635 640

Ile Glu Ser Gln Trp Asn Pro Lys Lys Thr Thr Ile Glu Asn Ile Gln 645 650 655

Leu Pro His Thr Leu Leu Ser Arg Phe Asp Leu Ile Phe Leu Met Leu 660 665 670

Asp Pro Gln Asp Glu Ala Tyr Xaa Gln Ala Ser Gly Ser Pro Pro Gly 675 680 685

Arg Thr Val Leu Pro Glu Arg Gly Ala Gly Arg Gly Gly Ala Pro Gly 690 695 700

His Gly Gly Ala Lys Gly Leu His Cys Leu Arg Ala Gln His His 705 $$ 710 $$ 715 $$ 720

Ala Ala Ala Lvs

<210> 1054

<211> 52

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1054

Leu Leu Cys Phe Tyr Glu Pro Arg Cys Ser Arg Lys Trp Xaa Gln Arg

His Ala Ser Xaa Arg Ser Pro Tyr Pro Ala Phe Val Pro Ala Val Pro Lys Ser Leu Ala Arg Ile Leu His Leu Gly Lys Lys Val Leu Asn Ala 35 40 Asn Val Thr Pro 50 <210> 1055 <211> 221 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (205) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (207) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1055 Arg Arg Gly Phe Gly Gly Val Arg Ala Ser Glu Ala Cys Gly Leu Arg Arg Arg Ala Gly Phe Gly Gly Val Arg Ala Ser Gly Ala Met Gly Thr 20 25 Pro Pro Gly Leu Gln Thr Asp Cys Glu Ala Leu Leu Ser Arg Phe Gln 35 40 Glu Thr Asp Ser Val Arg Phe Glu Asp Phe Thr Glu Leu Trp Arg Asn Met Lys Phe Gly Thr Ile Phe Cys Gly Arg Met Arg Asn Leu Glu Lys 70 75 Asn Met Phe Thr Lys Glu Ala Leu Ala Leu Ala Trp Arg Tyr Phe Leu 85 90 Pro Pro Tyr Thr Phe Gln Ile Arq Val Gly Ala Leu Tyr Leu Leu Tyr 100 105

Gly Leu Tyr Asn Thr Gln Leu Cys Gln Pro Lys Gln Lys Ile Arg Val

120

Ala Leu Lys Asp Trp Asp Glu Val Leu Lys Phe Gln Gln Asp Leu Val 130 135 140

Asn Ala Gln His Phe Asp Ala Ala Tyr Ile Phe Arg Lys Leu Arg Leu 145 150 155 160

Asp Arg Ala Phe His Phe Thr Ala Met Pro Lys Leu Leu Ser Tyr Arg

Met Lys Lys Lys Ile His Arg Ala Glu Val Thr Glu Glu Phe Lys Asp \$180\$

Pro Ser Asp Arg Val Met Lys Leu Ile Thr Ser Asp Xaa Leu Xaa Glu 195 200 205

Met Leu Asn Gly His Asp His Tyr Gln Asn Met Asn Met 210 215 220

<210> 1056

<211> 59

<212> PRT

<213> Homo sapiens

<400> 105

Lys Ala Val Arg Ser Met Leu Leu Ser Ser Leu Arg Glu Asn Phe Leu 1 5 10 15

Asn Asn Thr Arg Lys Arg Lys Ile Gly Leu Phe Ser Leu Leu Val Leu \$20\$

Ser Ile Leu Ser Ser Leu Gln Gly Arg Val Ala Lys Leu Trp Gly Leu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Asn Pro Glu Gly Gly Leu Ser Gly His Gln Thr 50 55

<210> 1057 <211> 193

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (192)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1057

Ser Leu Pro Trp Arg Val Pro Arg Ser Met Glu Thr Phe Asp Pro Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Glu Leu Pro Glu Leu Leu Lys Leu Tyr Tyr Arg Arg Leu Phe Pro Tyr \$20\$

Ser Gln Tyr Tyr Arg Trp Leu Asn Tyr Gly Gly Val Ile Lys Asn Tyr 35 40 45

Phe Gln His Arg Glu Phe Ser Phe Thr Leu Lys Asp Asp Ile Tyr Ile $50 \hspace{1cm} 55 \hspace{1cm} 60$

Arg Tyr Gln Ser Phe Asn Asn Gln Ser Asp Leu Glu Lys Glu Met Gln 65 70 75 80

Lys Met Asn Pro Tyr Lys Ile Asp Ile Gly Ala Val Tyr Ser His arg $$85\ 90\ 95$

Pro Asn Gln His Asn Thr Val Lys Leu Gly Ala Phe Gln Ala Gln Glu 100 105 110

Lys Glu Leu Val Phe Asp Ile Asp Met Thr Asp Tyr Asp Asp Val Arg 115 120 125

Arg Cys Cys Ser Ser Ala Asp Ile Cys Pro Lys Cys Trp Thr Leu Met 130 \$135\$

Thr Met Ala Ile Arg Ile Ile Asp Arg Ala Leu Lys Glu Asp Phe Gly 145 150 155 160

Phe Lys His Arg Leu Trp Val Tyr Ser Gly Arg Arg Gly Val His Cys 165 170 175

Trp Val Cys Asp Glu Ser Val Arg Asn Cys Leu Leu Gln Tyr Val Xaa 180 185 190

Gly

<210> 1058

<211> 55 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1058 Asp Glu Asp Asn Glu Lys Glu Lys Arg Asp Ser Leu Gly Asn Glu Glu Ser Val Asp Lys Thr Ala Cys Glu Cys Val Arg Ser Pro Arg Glu Ser 25 Leu Asp Asp Leu Phe Gln Ile Cys Ser Pro Cys Ala Ile Ala Ser Gly 40 Leu Arg Xaa Thr Trp Leu Asn 50 <210> 1059 <211> 205 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (128) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (205) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1059 Arg Val Ser Leu Val Val Thr Glu Thr Val Asp Ala Gly Leu Phe Gly Glu Gly Ile Val Glu Ser Leu Ile His Ala Trp Glu His Leu Leu Leu Gln Pro Lys Thr Lys Gly Glu Ser Ala Asn Cys Glu Lys Tyr Gly Lys 35 40 45 Val Ile Pro Ala Ser Ala Val Ile Phe Gly Met Ala Val Glu Cys Ala 5.5 Glu Ile Arg Arg His His Arg Val Gly Ile Lys Asp Ile Ala Gly Ile His Leu Pro Thr Asn Val Lys Phe Gln Ser Pro Ala Tyr Ser Ser Val

Asp Thr Glu Glu Thr Ile Glu Pro Tyr Thr Thr Glu Lys Met Ser Arg

100 105 110

Val Pro Gly Gly Tyr Leu Ala Leu Thr Glu Cys Phe Glu Ile Met Xaa 115 120 125

Val Asp Phe Asn Asn Leu Gln Glu Leu Lys Ser Leu Ala Thr Lys Lys

130 135 140

Pro Gly Lys Ile Gly Ile Pro Val Ile Lys Glu Gly Ile Leu Asp Ala

Val Val Val Trp Phe Val Leu Gln Leu Asp Asp Glu His Ser Leu Ser

165 170 175

Thr Ser Pro Asn Glu Glu Thr Cys Trp Glu Gln Ala Val Tyr Pro Val 180 185 190

His Asp Leu Ala Asp Tyr Arg Ile Lys Arg Gly Asp Xaa 195 200 205

150

<210> 1060

<211> 92

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1060

Pro Val Lys Val Trp Glu Gly Leu Arg Glu Lys Arg Ser Val Phe Ser 1 5 10 15

Ser Gly Ser Gly Ser Cys Lys Leu His Leu Pro Gly Ala Leu Pro Leu 20 25 30

Leu Tyr Pro Phe Ala Val Cys Pro Pro Pro Pro Gly Ser Trp Ser Pro 35 40 45

Ser Cys Ser Asn Ser Phe Cys Ser Tyr Ser Arg Gly Leu Leu Gly Leu
50 55 60

Leu Ser Pro Val Arg Leu Gly Xaa Ala Leu Gly Ser Trp Val Ser Ser 65 70 75 80

Thr Asp His Ala Arg Pro Leu Arg Pro Gln Ile Ile 85 90

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<210> 1061
<211> 295
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (243)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (277)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1061
Ala Glu Ala Ile Pro Leu Ala Asp Gln Pro His Leu Leu Gln Pro Asn
                                    10
Ala Arg Lys Glu Asp Leu Phe Gly Arg Pro Ser Gln Gly Leu Tyr Ser
                                25
Ser Ser Ala Ser Ser Gly Lys Cys Leu Met Glu Val Thr Val Asp Arg
         35
                            40
Asn Cys Leu Glu Val Leu Pro Thr Lys Met Ser Tyr Ala Ala Asn Leu
    50
Lys Asn Val Met Asn Met Gln Asn Arg Gln Lys Lys Glu Gly Glu Glu
65
                    70
                                        75
Gln Pro Val Leu Pro Glu Glu Thr Glu Ser Ser Lys Pro Gly Pro Ser
Ala His Asp Leu Ala Ala Gln Leu Lvs Ser Ser Leu Leu Ala Glu Ile
           100
                               105
                                                   110
Gly Leu Thr Glu Ser Glu Gly Pro Pro Leu Thr Ser Phe Arg Pro Gln
        115
                           120
Cys Ser Phe Met Gly Met Val Ile Ser His Asp Met Leu Leu Gly Arg
                       135
                                           140
Trp Arg Leu Ser Leu Glu Leu Phe Gly Arg Val Phe Met Glu Asp Val
145
                  150
                                       155
Gly Ala Glu Pro Gly Ser Ile Leu Thr Glu Leu Gly Gly Phe Glu Val
               165
                                  170
```

Lys Glu Ser Lys Phe Arg Arg Glu Met Glu Lys Leu Arg Asn Gln Gln 180 185 190

Ser Arg Asp Leu Ser Leu Glu Val Asp Arg Asp Arg Asp Leu Leu Ile 195 \$200\$

Gln Gln Thr Met Arg Gln Leu Asn Asn His Phe Gly Arg Arg Cys Ala 210 215 220

Thr Thr Pro Met Ala Val His Arg Val Lys Val Thr Phe Lys Asp Glu 225 230 235 240

Pro Gly Xaa Gly Ser Gly Val Ala Arg Ser Phe Tyr Thr Ala Ile Ala 245 250 255

Gln Ala Phe Leu Ser Asn Glu Lys Leu Pro Asn Leu Glu Cys Ile Pro 260 265 270

Lys Lys Lys Phe Xaa Pro Pro Gln Lys Pro Lys Lys Gly Pro Thr 275 280 285

Pro Asn His Gln Arg Val Phe 290 295

<210> 1062

<211> 35

<212> PRT

<213> Homo sapiens

<400> 1062

Gly Glu Glu His Ile Pro Gln Glu Ala Pro Gln Gly Ala Glu Thr Ala

Leu Ile Pro Ala Asp Ile Thr Glu Lys Gln Gln Ser Leu Phe Asn Phe 20 25 30

Val Thr Met

<210> 1063

<211> 210

<212> PRT

<213> Homo sapiens

<400> 1063

Gln Tyr Phe Met Thr Met Asp Gly Asp Ser Ser Thr Thr Asp Ala Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gln Leu Gly Ile Ser Ala Asp Tyr Ile Gly Gly Ser His Tyr Val Ile

Gln Pro His Asp Asp Thr Glu Asp Ser Met Asn Asp His Glu Asp Thr 35 40 45

Asn Gly Ser Lys Glu Ser Phe Arg Glu Gln Asp Ile Tyr Leu Pro Ile 50 60

Ala Asn Val Ala Arg Ile Met Lys Asn Ala Ile Pro Gln Thr Gly Lys 65 70 75 80

Ile Ala Lys Asp Ala Lys Glu Cys Val Glu Cys Val Ser Glu Phe \$85\$

Ile Ser Phe Ile Thr Ser Glu Ala Ser Glu Arg Cys His Gln Glu Lys $100 \hspace{1.5cm} 105 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Arg Lys Thr Ile Asn Gly Glu Asp Ile Leu Phe Ala Met Ser Thr Leu 115 \$120\$

Gly Phe Asp Ser Tyr Val Glu Pro Leu Lys Leu Tyr Leu Gln Lys Phe 130 135 140

Arg Glu Ala Met Lys Gly Glu Lys Gly Ile Gly Gly Ala Val Thr Ala 145 150 155 160

Thr Asp Gly Leu Ser Glu Glu Leu Thr Glu Glu Ala Phe Thr Asn Gln 165 170 175

Leu Pro Ala Gly Leu Ile Thr Thr Asp Gly Gln Gln Asn Val Met \$180\$

Val Tyr Thr Thr Ser Tyr Gln Gln Ile Ser Gly Val Gln Gln Ile Gln 195 200 205

Phe Ser 210

<210> 1064 <211> 332

·211> 33

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (216)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (315) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (326) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1064 Leu Arg Pro Ser Val Tyr Pro Val Ala Ser Ser Leu Pro Val Pro Asp Leu Ile Leu Arg Gln Arg Leu Leu Gln Asp Pro Val Ala Arg Pro Gln 20 30 Ala Met Ala Gly Pro Phe Ser Arg Leu Leu Ser Ala Arg Pro Gly Leu 40 Arg Leu Leu Ala Leu Ala Gly Ala Gly Ser Leu Ala Ala Gly Phe Leu Leu Arg Pro Glu Pro Val Arg Ala Ala Ser Glu Arg Arg Arg Leu Tyr 75 Pro Pro Ser Ala Glu Tyr Pro Asp Leu Arg Lys His Asn Asn Cys Met 85 9.0 Ala Ser His Leu Thr Pro Ala Val Tyr Ala Arg Leu Cys Asp Lys Thr 105 Thr Pro Thr Gly Trp Thr Leu Asp Gln Cys Ile Gln Thr Gly Val Asp 120 Asn Pro Gly His Pro Phe Ile Lys Thr Val Gly Met Val Ala Gly Asp 130 135 Glu Glu Thr Tyr Glu Val Phe Ala Asp Leu Phe Asp Pro Val Ile Gln 145 150 155 Glu Arg His Asn Gly Tyr Asp Pro Arg Thr Met Lys His Thr Thr Asp 170

Leu Ser Ser Arg Val Arg Thr Gly Arg Ser Ile Arg Gly Leu Ser Leu \$195\$ 200 205

180

Leu Asp Ala Ser Lys Ile Arg Ser Gly Tyr Phe Asp Glu Arg Tyr Val

Pro Pro Ala Cys Thr Arg Ala Xaa Arg Arg Glu Val Glu Arg Val Val 210 215 220

Val Asp Ala Leu Ser Gly Leu Lys Gly Asp Leu Ala Gly Arg Tyr Tyr 225 230 235 240

Arg Leu Ser Glu Met Thr Glu Ala Glu Gln Gln Gln Leu Ile Asp Asp 245 250 255

His Phe Leu Phe Asp Lys Pro Val Ser Pro Leu Leu Thr Ala Ala Gly 260 265

Met Ala Arg Asp Trp Pro Asp Ala Arg Gly Ile Trp His Asn Asn Glu \$275\$ \$280\$

Lys Ser Phe Leu Ile Trp Val Asn Glu Glu Asp His Thr Arg Val Ile 290 295 300

Ser Met Glu Lys Gly Gly Asn Met Lys Arg Xaa Phe Glu Arg Ser Ala 305 310 315 320

Glu Ala Ser Lys Arg Xaa Arg Asp Tyr Val Gly Asp 325. 330

<210> 1065

<211> 241

<212> PRT

<213> Homo sapiens

<400> 1065

Ser Phe Phe Phe Lys Val Ser Arg Ser Glu Ala Ser His Arg Met Ile 1 5 10 15

Leu Leu Asn Asn Ser His Lys Leu Leu Ala Leu Tyr Lys Ser Leu Ala 20 25 30

Arg Ser Ile Pro Glu Ser Leu Lys Val Tyr Gly Ser Val Tyr His Ile $35 \hspace{1cm} 40 \hspace{1cm} 45$

Glu Tyr Gln Met Val Ile Ile Arg Pro Gln Lys Gln Glu Met Thr Asp 65 70 75 80

Asp Met Asp Ser Tyr Thr Asn Val Tyr Arg Met Phe Ser Lys Glu Pro 85 90 95

Gln Lys Ser Glu Glu Val Leu Lys Asn Cys Glu Ile Val Asn Trp Lys

155

100 105 110

Gln Arg Leu Gln Ile Gln Gly Leu Gln Glu Ser Leu Gly Glu Gly Ile 115 120 125

Arg Val Ala Thr Phe Ser Lys Ser Val Lys Val Glu His Ser Arg Ala 130 135 140

130 135 140

Leu Leu Leu Val Thr Glu Asp Ile Leu Lys Leu Asn Ala Ser Ser Lys

150

Ser Lys Leu Gly Ser Trp Ala Glu Thr Gly His Pro Asp Asp Glu Phe 165 170 175

Glu Ser Glu Thr Pro Asn Phe Lys Tyr Ala Gln Leu Asp Val Ser Tyr 180 185 190

Ser Gly Leu Val Asn Asp Asn Trp Lys Arg Gly Lys Asn Glu Arg Ser 195 200 205

Leu His Tyr Ile Lys Arg Cys Ile Glu Asp Leu Pro Ala Ala Cys Met 210 215 220

Leu Gly Pro Glu Glu Ile Pro Val Ser Trp Val Thr Met Gly Pro Phe 225 \$230\$

Leu

145

<210> 1066

<211> 142

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (130)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1066

Glu Val Leu Arg Asp Cys Xaa Ser Pro Asn Ser Ile Ser Ile Met Gly $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Asn Thr Ser Arg Val Ala Ile Thr Leu Lys Pro Gln Asp Pro Met

20 25 30

Glu Gln Asn Val Ala Glu Leu Leu Gln Phe Leu Leu Val Lys Asp Gln 35 40 45

Glu Tyr Arg Asn Gln Phe Pro Glu Ile Leu Arg Arg Ala Ala Ala His 65 70 75 80

Leu Glu Cys Ile Phe Arg Phe Glu Leu Arg Glu Leu Asp Pro Glu Ala 85 90 95

His Thr Tyr Ile Leu Leu Asn Lys Leu Gly Pro Val Pro Phe Glu Gly 100 105 110

Leu Glu Ser Fro Asn Gly Pro Lys Met Gly Leu Leu Met Met Ile 115 120 125

Leu Xaa Gln Ile Phe Leu Asn Gly Asn Gln Ala Lys Glu Ala 130 \$135\$

<210> 1067

<211> 111

<212> PRT

<213> Homo sapiens

<400> 1067

Thr Arg Ser Ala Gly Ser Arg Gly Gly Ala Trp Thr Pro Ala Trp Gln $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Val Pro Pro Arg Glu Arg Gly Ser Arg Cys Ile Ser Ala Ala Phe Ile 20 25 30

Thr Asp Leu Gly Leu His Gln Gly Thr Cys Arg Thr Ala Leu Lys Thr 35 40 45

Ala Glu Ser Glu Glu Pro Ser Leu Gly Pro Gly Arg Pro Ala Val Gln 50 \$55\$ 60

Leu Ala Ser Arg Ile Pro Leu Pro Ala Pro Ala Asp Asp Leu Phe Trp 65 70 75 80

Arg Val Glu Asn Val Leu Gly Phe Lys Val Gln Ser Gly Phe Leu Ser 85 90 95

Ile His Tyr Ser Cys Leu His Ser Thr Asn Lys Ser Trp Glu Arg $100 \hspace{1cm} 105 \hspace{1cm} 110$

50

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<210> 1068
<211> 59
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1068
Leu Leu Tyr Gln Ser Ile Glu Asp Ser Ser Tyr Leu Leu Pro Val Ala
                                     10
Gln Phe Arg Phe Trp Glu Xaa Ala Glu Gln Val Lys His Arg Lys Leu
                               25
Lys Arg Arg Asn Pro His Phe Gly Pro Ile Phe Leu Leu Asp Tyr Phe
         35
                            40
Leu Ile Ser Ile Leu Pro Ile Val Leu Met Phe
     50
                        55
<210> 1069
<211> 55
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1069
Cys Leu Ala Val Arg Arg His Glu Leu Arg Thr Val His His Gly Ser
Glu Arg Xaa Arg Asn Pro Ser Pro Ile Arg Thr Met Thr Asp Ile Leu
                                25
Ser Arg Gly Pro Lys Ser Met Ile Ser Leu Ala Gly Gly Leu Pro Asn
        35
                           40
Pro Asn Met Phe Pro Phe Lys
```

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<210> 1070
<211> 369
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (293)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1070
Asp Arg Ser Phe Leu Glu Asp Thr Thr Pro Ala Arg Asp Glu Lys Lys
Val Gly Ala Lys Ala Ala Gln Gln Asp Ser Xaa Ser Xaa Gly Glu Ala
             20
                                 25
                                                     30
Leu Gly Gly Xaa Pro Met Val Ala Xaa Phe Gln Asp Asp Val Asp Leu
         35
Glu Asp Gln Pro Arg Gly Ser Pro Pro Leu Pro Ala Gly Pro Val Pro
                        55
Ser Gln Asp Ile Thr Leu Ser Ser Glu Glu Glu Ala Glu Val Ala Ala
65
                    70
Pro Thr Lys Gly Pro Ala Pro Ala Pro Gln Gln Cys Ser Glu Pro Glu
                85
```

Thr Lys Trp Ser Ser Ile Pro Ala Ser Lys Pro Arg Arg Gly Thr Ala Pro Thr Arg Thr Ala Ala Pro Pro Trp Pro Gly Gly Val Ser Val Arg 120 Thr Gly Pro Glu Lys Arg Ser Ser Thr Arg Pro Pro Ala Glu Met Glu 135 140 Pro Gly Lys Gly Glu Gln Ala Ser Ser Ser Glu Ser Asp Pro Glu Gly 155 Pro Ile Ala Ala Gln Met Leu Ser Phe Val Met Asp Asp Pro Asp Phe 170 Glu Ser Glu Gly Ser Asp Thr Gln Arg Arg Ala Asp Asp Phe Pro Val 180 Arg Asp Asp Pro Ser Asp Val Thr Asp Glu Asp Glu Gly Pro Ala Glu 200 Pro Pro Pro Pro Pro Lys Leu Pro Leu Pro Ala Phe Arg Leu Lys Asn 215 Asp Ser Asp Leu Phe Gly Leu Gly Leu Glu Glu Ala Gly Pro Lys Glu 230 235 Ser Ser Glu Glu Gly Lys Glu Gly Lys Thr Pro Ser Lys Glu Lys Lys 245 Lys Lys Lys Lys Gly Lys Glu Glu Glu Glu Lys Ala Ala Lys Lys 265 Lys Ser Lys His Lys Lys Ser Lys Asp Lys Glu Glu Gly Lys Glu Glu 280 Arg Arg Arg Arg Xaa Gln Arg Pro Pro Arg Ser Arg Glu Arg Thr Ala 290 295 Ala Asp Glu Leu Glu Ala Phe Leu Gly Gly Gly Ala Arg Ala Ala Ala 305 310 315 Thr Leu Gly Val Ala Thr Thr Arg Ser Ser Arg Pro Ala Trp Ala Val 330 Ala Ala Leu Gly Arg Gly Ala Cys Leu Ser Leu Pro Gly Glu Ala Phe 340 Ala Ser Val Pro Ser Pro Leu Pro Leu Pro Arg Gly Cys Arg Val Arg

360

Phe

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<210> 1071
<211> 209
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (179)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (180)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (202)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (208)
<223> Xaa equals any of the naturally occurring L-amino acids
Glu Arg Leu Tyr Pro Ala Val Val Gly Gly Arg Ala Val Glu Gln
Gln His Arg Arg Gly Ser Arg Glu Ala Gly Ser Ala Arg Ala Glu Met
             20
Trp Asn Leu Leu His Glu Thr Asp Ser Ala Val Ala Thr Ala Arg Arg
                            40
Pro Arg Trp Leu Cys Ala Gly Ala Leu Val Leu Ala Gly Gly Phe Phe
     50
                         55
Leu Leu Gly Phe Leu Phe Gly Trp Phe Ile Lys Ser Ser Asn Glu Ala
65
                     70
                                         75
```

Thr Asn Ile Thr Pro Lys His Asn Met Lys Ala Phe Leu Asp Glu Leu 85 90 95

Lys Ala Glu Asn Ile Lys Lys Phe Leu Tyr Asn Phe Thr Gln Ile Pro $100 \ \ 110$

His Leu Ala Gly Thr Glu Gln Asn Phe Gln Leu Ala Lys Gln Ile Gln 115 120 125

Ser Gln Trp Lys Glu Phe Gly Leu Asp Ser Val Glu Leu Ala His Tyr 130 135 140

Asp Val Leu Leu Ser Tyr Pro Asn Lys Thr His Pro Asn Tyr Ile Ser 145 $$150\,$

Ile Ile Asn Glu Asp Gly Asn Glu Ile Phe Asn Thr Ser Leu Phe Glu 165 170 175

Pro Pro Xaa Xaa Gly Tyr Glu Asn Gly Ser Asp Ile Xaa Pro Pro Phe 180 185 190

Ser Ala Phe Ser Pro Gln Gly Met Pro Xaa Gly Asp Leu Val Tyr Xaa 195 200 205

Asn

<210> 1072

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1072

Leu Gln Gly Leu Leu Ile Asn Pro Leu Thr Leu Ser Pro Ser Asn Thr

1 5 10 15

Val Ser Gln Ser Leu Phe Phe Trp Leu Gly Phe Tyr Ile Lys Leu Ser \$20\$

Ile Leu Ser Asn Asp Leu Ser Leu Leu Pro Phe Leu Leu His Ile Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ile Lys Thr Phe Phe Val Phe Asn Ser Cys His Leu Asp Ser Arg Thr $50 \ \ 55 \ \ 60$

Ser Ser Ile Pro His Val Cys Ser Leu Leu Cys Gln Pro Arg Pro Phe 65 70 75 80

Leu Tyr Pro Pro Ala Trp Xaa Cys Cys Pro Leu Cys Ser Xaa Leu Thr

Arg Tyr Lys Glu His Glu Asp Gly Tyr Met Arg Leu Gln Leu Val Arg 100 105 110

% Xaa Glu Ser Val Glu Leu Thr Gln Gln Leu Leu Arg Gln Pro Gln Glu 115 120 125

Gly Ser Gly Trp Glu Arg Arg 130 135

<210> 1073

<211> 135

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (48) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1073

Pro Ser Asp Val Asn Val Met Ala Glu Ser Leu Lys Asp Met Glu Ala 1 5 10 15

Asp Ala Gln Lys Leu Tyr Gln Leu Ile Trp Arg Gln Phe Val Ala Cys $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gln Met Thr Pro Ala Lys Tyr Asp Ser Thr Thr Leu Thr Val Gly Xaa

35 40 45

Gly Asp Phe Arg Leu Lys Ala Arg Gly Arg Ile Leu Arg Phe Asp Gly 50 55 60

Trp Thr Lys Val Met Pro Ala Leu Arg Lys Gly Asp Glu Asp Arg Ile 65 70 75 80

Leu Pro Ala Val Asn Lys Gly Asp Ala Leu Thr Leu Val Glu Leu Thr 85 90 95

Pro Ala Gln His Phe Thr Lys Pro Pro Ala Arg Phe Ser Glu Ala Ser $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Leu Val Lys Glu Leu Glu Lys Arg Gly Ile Gly Arg Pro Ser Xaa Tyr 115 120 125

Ala Ser Ile Ile Ser Thr Ile 130 135

<210> 1074

<211> 410

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (177)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (248)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (300)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (372) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1074 Arg Asn Lys Arg Glu Glu Lys Lys Ala Gln Asn Ser Glu Xaa Arg Met Lys Arg Ala Gln Xaa Tyr Asp Ser Ser Phe Pro Asn Trp Glu Phe Ala Arg Met Ile Lys Glu Phe Arg Ala Thr Leu Glu Cys His Pro Leu Thr 35 40 Met Thr Asp Pro Ile Glu Glu His Arg Ile Cys Val Cys Val Arg Lys Arg Pro Leu Asn Lys Gln Glu Leu Ala Lys Lys Glu Ile Asp Val Ile 70 Ser Ile Pro Ser Lys Cys Leu Leu Leu Val His Glu Pro Lys Leu Lys Val Asp Leu Thr Lys Tyr Leu Glu Asn Gln Ala Phe Cys Phe Asp Phe 105 Ala Phe Asp Glu Thr Ala Ser Asn Glu Val Val Tyr Arg Phe Thr Ala Arg Pro Leu Val Gln Thr Ile Phe Glu Gly Gly Lys Ala Thr Cys Phe 130 135 140 Ala Tyr Gly Gln Thr Gly Ser Gly Lys Thr His Thr Met Gly Gly Asp 150 Leu Ser Gly Lys Ala Gln Asn Ala Ser Lys Gly Ile Tyr Ala Met Ala 170 Xaa Arg Asp Val Phe Leu Leu Lys Asn Gln Pro Cys Tyr Arg Lys Leu 180 185 190 Gly Leu Glu Val Tyr Val Thr Phe Phe Glu Ile Tyr Asn Gly Lys Leu 200 Phe Asp Leu Leu Asn Lys Lys Ala Lys Leu Arg Val Leu Glu Asp Gly 215

Lys Gln Gln Val Gln Val Gly Leu Gln Glu His Leu Val Asn Ser

235

230

Ala Asp Asp Val Ile Lys Met Xaa Asp Met Gly Ser Ala Cys Arg Thr 245 250 255

Ser Gly Gln Thr Phe Ala Asn Ser Asn Ser Ser Arg Ser His Ala Cys \$260\$

Phe Gln Ile Ile Leu Arg Ala Lys Gly Arg Met His Gly Lys Phe Ser 275 280 285

Leu Val Asp Leu Ala Gly Asn Glu Arg Gly Ala Xaa Thr Ser Ser Ala 290 295 300

Asp Arg Gln Thr Arg Met Glu Gly Ala Glu Ile Asn Lys Ser Leu Leu 305 310 315 320

Ala Leu Lys Glu Cys Ile Arg Ala Leu Gly Gln Asn Lys Ala His Thr 325 330 335

Pro Phe Arg Glu Ser Lys Leu Thr Gln Val Leu Arg Asp Ser Phe Ile $340 \hspace{1cm} 345 \hspace{1cm} 350$

Gly Glu Asn Ser Arg Thr Cys Met Ile Ala Thr Ile Ser Pro Gly Ile \$355\$ \$360\$ \$365\$

Ser Ser Cys Xaa Ile Tyr Phe Lys His Pro Glu Ile Cys Arg Gln Gly 370 375 380

Gln Gly Ala Glu Pro Pro Gln Trp Ala Gln Trp Arg Ala Val Asp Ser 385 390 395 400

Asn Gly Asn Arg Arg Asp Gly Ser Leu Leu 405 410

<210> 1075

<211> 196

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (167)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1075

Leu Pro Phe Phe Arg Leu Ser Phe Ala Phe Val Leu Arg Gly Phe Arg 1 5 10 15

Asn Thr Ala Gln Asn Tyr Arg Glu Asn Thr Pro Ala Arg Ala Leu Ser

Arg Thr Arg Cys Ala Ala Ser Val Trp Leu Ala Ser Ser Ser Gln Phe $35 \qquad \qquad 40 \qquad \qquad 45$

Pro Thr His Arg Leu Arg Ser Ser Asn Ser His Asp Ile Cys Ser Thr $50 \hspace{1cm} 55 \hspace{1cm} 60$

Arg Arg Arg Ile Arg Cys Arg Val Leu Ala Arg Pro Phe Ser Ser Ala 65 70 75 80

Cys Cys Xaa His Arg Cys Val Thr Arg Asn Arg Arg Ala Glu Gln His $85 \hspace{1cm} 90 \hspace{1cm} 95$

Asp Val Arg Phe Gly Glu Leu His Gln Pro Tyr Pro Gln Ala Gly Ala $100 \,$ $\,$ $105 \,$ $\,$ $110 \,$

Ala Gly Val Ser Arg Gly Arg Gly Glu Ala Ala Val Gly Asp Arg Trp 115 120 125

Glu Val Gly Arg Pro Gly Leu Gly Gly Ile Leu Gly Ala Gly Glu Glu 130 135 140

Met Arg Ala Pro Glu Arg Pro Arg Val Arg Arg Arg Arg Leu Glu Pro 145 150155155160

Ser Arg Cys Cys Gly Pro Xaa Gly Pro Phe His Phe Ala Cys Lys Thr 165 170 175

Gln Ile Lys Thr Gln Cys Asp Tyr Ser Glu Leu Phe Cys Leu Lys Lys 180 185 190

Asn Val Arg Ser 195

<210> 1076

<211> 31

<211> 31 <212> PRT

<213> Homo sapiens

<400> 1076

Gln Leu Thr Leu Asn Ile Ser Leu Leu Leu Ser Leu Ser Leu Ser Phe
1 5 10 15

Phe Phe Asn Met Val Lys Leu Asp Gln Gly Ser Glu His Arg Phe 20 25 30

<210> 1077

<211> 87

<212> PRT

<213> Homo sapiens

<400> 1077

Asn Cys Pro Asn Pro His Leu His Lys Asn Leu Ser Pro Val His Lys 1 5 10 15

Ala Asp His Glu Ala Ile Ile Phe Leu Glu Gly Phe Leu Ala Cys Ser 20 25 30

Pro Val Ala Ser Ala Ala Leu Ala Leu Cys His Ser Glu Pro Lys Gly

Lys Val Met Glu Gln His His Ile Cys Arg Leu Ser Val Leu Phe Gly 50 55 60

Glu Gly Lys Gly Arg Glu Cys Arg Arg Met Lys Lys Phe Leu Pro Thr 65 70 75 80

Ala Ser Ile Leu Ile Phe Leu 85

<210> 1078

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (65)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1078

Pro Asp Gln Gly Gly Asp Glu Gly Ile Leu Ser Ser Arg Thr Cys Arg 1 5 10 15

Gly Thr Arg Gln Gly Pro His Pro Arg Gly Asp Pro Val Ala Arg His

20 25 30

Ile Met Gly Thr Ala Gly Trp Pro Gln Ala Ser Ala Pro Leu Leu Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Arg Gln Gly Leu Leu Glu Pro Cys Ala His Pro Gly Leu Leu Arg 50 55 60

Xaa Gln Pro Cys Thr Glu Ser Ala Asp Val Pro Cys Leu Xaa Thr Arg 65 70 75 80

Pro Leu Cys Pro Leu

<210> 1079

<211> 594

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (430)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1079

Cys Cys Leu Arg Phe Ser Phe Thr Phe Thr Glu Met Ser Tyr Gly Glu

1 5 10 15

Ile Glu Gly Lys Phe Leu Gly Pro Arg Glu Glu Val Thr Ser Glu Pro $20 \\ 25 \\ 30$

Arg Cys Lys Leu Lys Ser Thr Thr Glu Ser Tyr Val Phe His Asn \$35\$ \$40\$ \$45\$

His Ser Asn Ala Asp Phe His Arg Ile Gln Glu Lys Thr Gly Asn Asp 50 55 60

Trp Val Pro Val Thr Ile Ile Asp Val Arg Gly His Ser Tyr Leu Gln 65 70 75 80

Glu Asn Lys Ile Lys Thr Thr Asp Leu His Arg Pro Leu His Asp Glu 85 90 95

Met Pro Gly Asn Arg Pro Asp Val Ile Glu Ser Ile Asp Ser Gln Val 100 105 110

Leu Gln Glu Ala Arg Pro Pro Leu Val Ser Ala Asp Asp Glu Ile Tyr 115 120 125

Ser Thr Ser Lys Ala Phe Ile Gly Pro Ile Tyr Lys Pro Pro Glu Lys Lys Lys Arg Asn Glu Gly Arg Asn Glu Ala His Val Leu Asn Gly Ile Asn Asp Arg Gly Gly Gln Lys Glu Lys Gln Lys Phe Asn Ser Glu Lys Ser Glu Ile Asp Asn Glu Leu Phe Gln Phe Tyr Lys Glu Ile Glu Glu Leu Glu Lys Glu Lys Asp Gly Phe Glu Asn Ser Cys Lys Glu Ser Glu Pro Ser Gln Glu Gln Phe Val Pro Phe Tyr Glu Gly His Asn Asn Gly Leu Leu Lys Pro Asp Glu Glu Lys Lys Asp Leu Ser Asn Lys Ala Met Pro Ser His Cys Asp Tyr Gln Gln Asn Leu Gly Asn Glu Pro Asp Lys Tyr Pro Cys Asn Gly Gln Val Ile Pro Thr Phe Cys Asp Thr Ser Phe Thr Ser Phe Arg Pro Glu Trp Gln Ser Val Tyr Pro Phe Ile Val Pro Tyr Gly Pro Pro Leu Pro Ser Leu Asn Tyr His Leu Asn Ile Gln Arg Phe Ser Gly Pro Pro Asn Pro Pro Ser Asn Ile Phe Gln Ala Gln Asp Asp Ser Gln Ile Gln Asn Gly Tyr Tyr Val Asn Asn Cys His Val Asn Trp Asn Cys Met Thr Phe Asp Gln Asn Asn Glu Tyr Thr Asp Cys Ser Glu Asn Arg Ser Ser Val His Pro Ser Gly Asn Gly Cys Ser Met Gln Asp Arg Tyr Val Ser Asn Gly Phe Cys Glu Val Arg Glu Arg Cys Trp Lys Asp His Cys Met Asp Lys His Asn Gly Thr Asp Arg Phe Val Asn

Gln Gln Phe Gln Glu Lys Leu Asn Lys Leu Gln Lys Leu Leu Ile 405 410 415

Leu Leu Arg Gly Leu Pro Gly Ser Gly Lys Thr Thr Leu Xaa Arg Ile 420 425 430

Leu Leu Gly Gln Asn Arg Asp Gly Ile Val Phe Ser Thr Asp Asp Tyr 435 440 445

Phe His His Gln Asp Gly Tyr Arg Tyr Asn Val Asn Gln Leu Gly Asp 450 455

Ala His Asp Trp Asn Gln Asn Arg Ala Lys Gln Ala Ile Asp Gln Gly 465 470475475

Arg Ser Pro Val Ile Ile Asp Asn Thr Asn Ile Gln Ala Trp Glu Met 485 490 495

Lys Pro Tyr Val Glu Val Ala Ile Gly Lys Gly Tyr Arg Val Glu Phe 500 505 510

His Glu Pro Glu Thr Trp Trp Lys Phe Asp Pro Glu Glu Leu Glu Lys
515 520 525

Arg Asn Lys His Gly Val Ser Arg Lys Lys Ile Ala Gln Met Leu Asp 530 535

Arg Tyr Glu Tyr Gln Met Ser Ile Ser Ile Val Met Asn Ser Val Glu 545 550 555 560

Pro Ser His Lys Ser Thr Gln Arg Pro Pro Pro Pro Gln Gly Arg Gln 565 570 575

Asn His

<210> 1080

<211> 61 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (55) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (59) <223> Xaa equals any of the naturally occurring L-amino acids Leu His Ile Lys Ile Leu Gln Ile Glu Lys Tyr Ile Lys Tyr Ala Met 10 Gly Leu Thr Phe Tyr Gln Asn Ser His Met Ile Ser Phe Ile Ser Ser Gly Ser Phe Arg Val Pro Ile Ala Leu Pro Ile Phe Thr Tyr Phe Ile 40 Asn Leu His Xaa Gly Ile Xaa Ser Leu Phe Xaa Phe Phe 50 55 <210> 1081 <211> 302 <212> PRT <213> Homo sapiens <400> 1081 Ala Pro Pro Ala Leu Leu Glu Ala Glu Val Cys Leu Leu Arg Val Gly 5 10 15 Pro Glu Ala Trp Ser Phe Ser Ala Ser Leu Thr Pro Val Ala Leu Gly Ser Ala Leu Ala Tyr Arg Ser His Gly Val Leu Asp Pro Arg Leu Leu Val Gly Cys Ala Val Ala Val Leu Ala Val His Gly Ala Gly Asn Leu 50 55 Val Asn Thr Tyr Tyr Asp Phe Ser Lys Gly Ile Asp His Lys Lys Ser 65 70 Asp Asp Arg Thr Leu Val Asp Arg Ile Leu Glu Pro Gln Asp Val Val

Arg Phe Gly Val Phe Leu Tyr Thr Leu Gly Cys Val Cys Ala Ala Cys

105

Leu Tyr Tyr Leu Ser Pro Leu Lys Leu Glu His Leu Ala Leu Ile Tyr 115 120 125

Phe Gly Gly Leu Ser Gly Ser Phe Leu Tyr Thr Gly Gly Ile Gly Phe 130 135 140

Lys Tyr Val Ala Leu Gly Asp Leu Ile Ile Leu Ile Thr Phe Gly Pro 145 150 155 160

Leu Ala Val Met Phe Ala Tyr Ala Ile Gln Val Gly Ser Leu Ala Ile 165 170 175

Phe Pro Leu Val Tyr Ala Ile Pro Leu Ala Leu Ser Thr Glu Ala Ile 180 $$185\$

Leu His Ser Asn Asn Thr Arg Asp Met Glu Ser Asp Arg Glu Ala Gly 195 200 205

Ile Val Thr Leu Ala Ile Leu Ile Gly Pro Thr Phe Ser Tyr Ile Leu 210 215 220

Tyr Asn Thr Leu Leu Phe Leu Pro Tyr Leu Val Phe Ser Ile Leu Ala 225 230 235 240

Thr His Cys Thr Ile Ser Leu Ala Leu Pro Leu Leu Thr Ile Pro Met 245 250 255

Ala Phe Ser Leu Glu Arg Gln Phe Arg Ser Gln Ala Phe Asn Lys Leu 260 265 270

Pro Gln Arg Thr Ala Lys Leu Asn Leu Leu Leu Gly Leu Phe Tyr Val \$275\$

Phe Gly Ile Ile Leu Ala Pro Ala Gly Ser Leu Pro Lys Ile 290 295 300

<210> 1082

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (60) <223> Xaa equals any of the naturally occurring L-amino acids Gln Asp Val Ser Glu Met Asp Val Xaa Phe Leu Leu Ile Gln Leu Ser Cys Tyr Phe Ser Ser Gly Ser Cys Gly Lys Val Leu Val Trp Pro Thr 25 Glu Tyr Ser His Trp Ile Asn Met Lys Thr Ile Leu Glu Glu Leu Val 40 45 Gln Arg Gly His Glu Val Thr Val Val Xaa Ile Xaa Gly Phe Tyr Ser 50 55 Cys Gln Cys Gln 65 <210> 1083 <211> 85 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1083 Xaa Pro Pro Gly Gly Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Val Arg Ala Ile Arg Leu Ala Leu Glu Gly Val Asp Val Lys Leu 20 25 Glu Gln Ala Ala Arg Thr Leu Gly Ala Gly Arg Trp Arg Val Phe Phe 35 Thr Ile Thr Leu Pro Leu Thr Leu Pro Gly Ile Ile Val Gly Thr Val 55 Leu Ala Phe Ala Arg Ser Leu Gly Glu Phe Gly Ala His His Leu Cys

75

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Val Glu His Ser Trp
                 85
<210> 1084
<211> 166
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (116)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (130)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (131)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (146)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (159)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (163)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1084
Pro Pro Ser Ala Ser Ser Val Ala Gly Asp Leu Gly Arg Gly Thr Arg
                                     10
Thr Glu Val Glu Ala Arg Ala Ala Arg Pro Gly Ala Glu Ser Ala Pro
             20
                                 25
                                                     30
Ala Ala Met Pro Asp Ser Trp Asp Lys Asp Val Tyr Pro Glu Pro
         35
                             40
```

Pro Arg Arg Thr Pro Val Gln Pro Asn Pro Ile Val Tvr Met Met Lvs

Ala Phe Asp Leu Ile Val Asp Arg Pro Val Thr Leu Val Arg Glu Phe

Ile Glu Arg Gln His Ala Lys Asn Arg Tyr Tyr Tyr Tyr His Arg Gln 85 90

Tyr Arg Arg Val Pro Asp Ile Thr Glu Cys Lys Glu Glu Asp Ile Met 105

Cys Ile Lys Xaa Asp Gln Glu Ile Ile Thr Leu Cys Arg Ile Gly Ser 120

Lys Xaa Xaa Ser Arg Gly Lys Asp Arg Leu Pro Ala Asp Cys Ile Lys 130 135

Glu Xaa Glu Gln Leu Pro Arg Trp Pro Arg Leu Pro Gly Thr Xaa Ile 145 160 150 155

Arg Thr Xaa Gly Pro Thr 165

<210> 1085 <211> 392

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (386)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1085

Met Glu Leu Val Ala Gly Cys Tyr Glu Gln Val Leu Phe Gly Phe Ala

Val His Pro Glu Pro Glu Ala Cys Gly Asp His Glu Gln Trp Thr Leu 25

Val Ala Asp Phe Thr His His Ala His Thr Ala Ser Leu Ser Ala Val 35

Ala Val Asn Ser Arg Phe Val Val Thr Gly Ser Lys Asp Glu Thr Ile 55

His Ile Tyr Asp Met Lys Lys Lys Ile Glu His Gly Ala Leu Val His

His	Ser	Gly	Thr	Ile 85	Thr	Cys	Leu	Lys	Phe 90	Tyr	Gly	Asn	Arg	His 95	Leu
Ile	Ser	Gly	Ala 100	Glu	Asp	Gly	Leu	Ile 105		Ile	Trp	Asp	Ala 110	Lys	Lys
Trp	Glu	Cys 115		Lys	Ser	Ile	Lys 120		His	Lys	Gly	Gln 125	Val	Thr	Phe
Leu	Ser 130	Ile	His	Pro	Ser	Gly 135	Lys	Leu	Ala	Leu	Ser 140	Val	Gly	Thr	Asp
Lys 145	Thr	Leu	Arg	Thr	Trp 150	Asn	Leu	Val	Glu	Gly 155	Arg	Ser	Ala	Phe	11e 160
Lys	Asn	Ile	Lys	Gln 165	Asn	Ala	His	Ile	Val 170	Glu	Trp	Ser	Pro	Arg 175	Gly
Glu	Gln	Tyr	Val 180	Val	Ile	Ile	Gln	Asn 185	Lys	Ile	Asp	Ile	Tyr 190	Gln	Leu
Asp	Thr	Ala 195	Ser	Ile	Ser	Gly	Thr 200	Ile	Thr	Asn	Glu	Lys 205	Arg	Ile	Ser
Ser	Val 210	Lys	Phe	Leu	Ser	Glu 215	Ser	Val	Leu	Ala	Val 220	Ala	Gly	Asp	Glu
Glu 225	Val	Ile	Arg	Phe	Phe 230	Asp	Суз	Asp	Ser	Leu 235	Val	Cys	Leu	Cys	Glu 240
Phe	Lys	Ala	His	Glu 245	Asn	Arg	Val	Lys	Asp 250	Met	Phe	Ser	Phe	Glu 255	Ile
Pro	Glu	His	His 260	Val	Ile	Val	Ser	Ala 265	Ser	Ser	Asp	Gly	Phe 270	Ile	Lys
Met	Trp	Lys 275	Leu	Lys	Gln	Asp	Lys 280	Lys	Val	Pro	Pro	Ser 285	Leu	Leu	Cys
Glu	Ile 290	Asn	Thr	Asn	Ala	Arg 295	Leu	Thr	Cys	Leu	Gly 300	Val	Trp	Leu	Asp
Lys 305	Val	Ala	Asp	Met	Lys 310	Glu	Ser	Leu	Pro	Pro 315	Ala	Ala	Glu	Pro	Ser 320
Pro	Val	Ser	Lys	Glu 325	Gln	Ser	Lys	Ile	Gly 330	Lys	Lys	Glu	Pro	Gly 335	Asp
Thr	Val	His	Lys 340	Glu	Glu	Lys	Arg	Ser 345	Lys	Pro	Asn	Thr	Lys 350	Lys	Arg

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Gly Leu Thr Gly Asp Ser Lys Lys Ala Thr Lys Glu Ser Gly Leu Ile
       355
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Ser Thr Lys Lys Arg Lys Met Val Glu Met Leu Glu Lys Lys Arg Lys 375 380

Lys Xaa Lys Ile Lys Thr Met Gln 385

<210> 1086

<211> 238

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1086

Ala Gly Thr Met His Gly Arg Leu Lys Val Lys Thr Ser Glu Glu Gln

Ala Glu Ala Lys Arg Leu Glu Arg Glu Gln Lys Leu Lys Leu Tyr Gln 25

Ser Ala Thr Gln Ala Val Phe Gln Lys Arg Gln Ala Gly Glu Leu Asp 35 45

Glu Ser Val Leu Glu Leu Thr Ser Gln Ile Leu Gly Ala Asn Pro Asp

Phe Ala Thr Leu Trp Asn Cys Arg Arg Glu Val Leu Gln Gln Leu Glu

Thr Gln Lys Ser Pro Glu Glu Leu Ala Ala Leu Val Lys Ala Glu Leu 85 90

Gly Phe Leu Glu Ser Cys Leu Arg Val Asn Pro Lys Ser Tyr Gly Thr 100 105

Trp His His Arg Cys Trp Leu Leu Gly Xaa Leu Pro Glu Pro Asn Trp 120

Thr Arg Glu Leu Glu Leu Cys Ala Arg Phe Leu Glu Val Asp Glu Arg 130 135 140

Asn Phe His Cys Trp Asp Tyr Arg Arg Phe Val Ala Thr Gln Ala Ala

145 150 155 160

Val Pro Pro Ala Glu Glu Leu Ala Phe Thr Asp Ser Leu Ile Thr Arg 165 170 175

Asn Phe Ser Asn Tyr Ser Ser Trp His Tyr Arg Ser Cys Leu Leu Pro \$180\$

Gln Leu His Pro Gln Pro Asp Ser Gly Pro Gln Gly Arg Leu Pro Glu 195 200 205

Asp Val Leu Leu Lys Glu Leu Glu Leu Val Gln Asn Ala Ser Ser Leu 210 215 220

Thr Pro Met Thr Arg Val Pro Gly Phe Ile Thr Val Gly Ser 225 230 235

<210> 1087

<211> 79

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1087

Leu Pro Ile Gln Ile Ser Leu Glu Leu Asp Arg Cys Phe Arg Gly Ala 1 5 10 15

Ala Leu Glu Arg Gly Phe Gly Leu Cys Lys Gly Arg Lys Glu Val Gln 20 25 30

Lys Asn Gly Val Gly Gly Ser Ala Gly Arg Leu Leu Lys Cys Gly Arg 35 40 45

Trp Lys Leu Gly Gly Glu Ile Lys Gly Thr Xaa Asp Gln Leu Val Cys $50 \hspace{1cm} 55 \hspace{1cm} 60$

Ser Tyr Gln Gly Asp Pro Phe Gln Ser Lys Ser His Met Xaa Val 65 70 75

<210> 1088 <211> 257 <212> PRT <213> Homo sapiens <400> 1088 Ile Pro Val His Leu Val Ser Ser Ser Ser Asn Leu Glu Arg Phe Thr 10 Ser Arg Arg Ala Pro Gly Val Gly Leu Tyr Asn Leu Lys Thr Leu Leu 25 Phe Phe Ser Ser Val Gln Trp Val Leu Ile Pro Thr Met Ala Ile Thr 35 40 Gln Phe Arg Leu Phe Lys Phe Cys Thr Cys Leu Ala Thr Val Phe Ser Phe Leu Lys Arg Leu Ile Cys Arg Ser Gly Arg Gly Arg Lys Leu Ser 70 75 Gly Asp Gln Ile Thr Leu Pro Thr Thr Val Asp Tyr Ser Ser Val Pro Lys Gln Thr Asp Val Glu Glu Trp Thr Ser Trp Asp Glu Asp Ala Pro 100 105 Thr Ser Val Lys Ile Glu Gly Gly Asn Gly Asn Val Ala Thr Gln Gln Asn Ser Leu Glu Gln Leu Glu Pro Asp Tyr Phe Lys Asp Met Thr Pro 130 135 140 Thr Ile Arg Lys Thr Gln Lys Ile Val Ile Lys Lys Arg Glu Pro Leu 145 Asn Phe Gly Ile Pro Asp Gly Ser Thr Gly Phe Ser Ser Arg Leu Ala 170 Ala Thr Gln Asp Leu Pro Phe Ile His Gln Ser Ser Glu Leu Glv Asp

Ala Ala Trp Gln Ala Glu Glu Val Leu Arg Gln Gln Lys Leu Ala Asp Arg Glu Lys Arg Ala Ala Glu Gln Gln Arg Lys Lys Met Glu Lys Glu 230 235

200

185 Leu Asp Thr Trp Gln Glu Asn Thr Asn Ala Trp Glu Glu Glu Glu Asp

180

```
Ala Gln Arg Leu Met Lys Lys Glu Gln Asn Lys Ile Gly Val Lys Leu
                245
Ser
<210> 1089
<211> 44
<212> PRT
<213> Homo sapiens
<400> 1089
Asn Ser Ala Arg Ala Asp Leu Arg Ala Ile Asn Ala Asn Leu Asn Glu
                 5
Lys Met Glu Ser Leu Thr Ala Val Ser Val Ser Ser Ile Ser Leu Ser
                                 25
Asn Ser Cys Pro Ser Leu Thr Val Leu Val Ser Val
        35
                           4.0
<210> 1090
<211> 96
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (85)
<223> Kaa equals any of the naturally occurring L-amino acids
<400> 1090
Gly Arg Pro Ala Cys Ala Arg Glu Pro Gly Leu Glu Pro Tyr Leu Gln
                                   10
Val Pro Asn Leu Arg Leu Xaa Ser Leu Ser Leu Pro Gln Pro Arg Thr
            20
Lys Thr Ser Pro Pro Glu Gly Leu Pro Gln Leu Arg Glu Arg Ser Arg
        35
                            40
```

Ser Ser Leu Gly Pro Gly Cys Ala Pro Gly Ala Gly Ser Asp Val Val

```
Ser Ser Pro Leu Arg Thr Gly Pro Ala Arg Ser Ser Trp Pro Pro Ser
                     70
Arg Ala Pro Ser Xaa Pro Pro Ser Ser Thr Ala Thr Thr Cys Arg Trp
                 85
                                     90
<210> 1091
<211> 131
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (75)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (78)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1091
Lys Ala Lys Phe Asn Ile Thr Gly Ala Cys Leu Asn Asp Ser Asp Asp
                                   10
Asp Ser Pro Asp Leu Asp Leu Asp Gly Asn Glu Ser Xaa Leu Ala Leu
```

40 Arg Arg Thr Lys Ile Ala Lys Lys Val Asp Lys Ala Arg Leu Met Ala 55 60

25 Leu Met Ser Asn Gly Xaa Thr Lys Arg Val Lys Ser Leu Ser Lys Ser

20

Glu Gln Val Met Glu Asp Glu Phe Asp Leu Xaa Ser Asp Xaa Glu Leu 65 70 75 80

Gln Ile Asp Glu Arg Leu Gly Lys Glu Lys Ala Thr Leu Ile Ile Arg 85 90 95

Pro Lys Phe Pro Arg Lys Leu Pro Arg Ala Asn Leu Ala Leu Thr Pro

Thr Glu Phe Val Asn Gln Glu Lys Leu Ser Leu Thr Leu Arg Arg Ile 115 120 125

Tyr Asn Arg 130

<210> 1092

<211> 158

<212> PRT

<213> Homo sapiens

<400> 1092

Leu Arg Ile Thr Val Leu Leu Thr Ser Phe Leu Met Val Leu Gly Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gly Leu Arg Cys Ile Pro Ile Ser Asp Leu Ile Leu Lys Arg Arg Leu 20 25 30

Ile His Gly Gly Gln Met Leu Asn Gly Leu Ala Gly Pro Thr Val Met \$35\$

Asn Ala Ala Pro Phe Leu Ser Thr Thr Trp Phe Ser Ala Asp Glu Arg 50 60

Ala Thr Ala Thr Ala Ile Ala Ser Met Leu Ser Tyr Leu Gly Gly Ala 65 70 75 80

Cys Ala Phe Leu Val Gly Pro Leu Val Val Pro Ala Pro Asn Gly Thr 85 90 95

Ile Glu Ala Val Leu Tyr Ala Glu Phe Gly Val Val Cys Leu Ile Phe 115 120 125

Ser Ala Thr Leu Ala Tyr Phe Pro Pro Arg Pro Pro Leu Pro Pro Ser 130 135 140

Val Ala Ala Ala Ser Gln Arg Glu Leu Ser Glu Lys Arg Leu 145 150 <210> 1093 <211> 235 <212> PRT <213> Homo sapiens <400> 1093 Arg Ala Ala Gln Leu Trp Val Trp Glu Gly Val Val Gln Pro Pro Ala Ala Trp Gly Gly Pro Trp Ser Ala Ser Arg Cys Gln Gln Gly Lys Gly 25 Gly Val Leu Glu Asn Glu Gly Phe Ile Gly Leu Leu Arg Glu Ala Pro Gln Pro Gln Thr His His Leu Ala Val Asp Thr Cvs Val Ser Met Trp Asp Leu Val Leu Ser Ile Ala Leu Ser Val Gly Cys Thr Gly Ala Val 70 Pro Leu Ile Gln Ser Arq Ile Val Gly Gly Trp Glu Cys Glu Lys His Ser Gln Pro Trp Gln Val Ala Val Tyr Ser His Gly Trp Ala His Cys 100 105 Gly Gly Val Leu Val His Pro Gln Trp Val Leu Thr Ala Ala His Cys Leu Lys Lys Asn Ser Gln Val Trp Leu Gly Arg His Asn Leu Phe Glu 135 140 Pro Glu Asp Thr Gly Gln Arg Val Pro Val Ser His Ser Phe Pro His 145 150 155 Pro Leu Tyr Asn Met Ser Leu Leu Lys His Gln Ser Leu Arg Pro Asp 165 170 Glu Asp Ser Ser His Asp Leu Met Leu Leu Arg Leu Ser Glu Pro Ala 185

Lys Ile Thr Asp Val Val Lys Val Leu Gly Leu Pro Pro Arg Ser Gln 200 His Trp Gly Pro Pro Ala Thr Pro Gln Ala Gly Ala Ala Ser Asn Gln

205

210 215 220 Arg Ser Ser Cys Ala Pro Gly Val Phe Ser Val 230 <210> 1094 <211> 128 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1094 Arg Arg Xaa Xaa Gly Arg Thr Asp Thr Ser Arg Ser Thr Ser Gly Glu Pro Lys Glu Arg Asp Lys Glu Glu Gly Lys Asp Ser Lys Pro Arg Ser 25 Leu Arg Phe Thr Trp Ser Met Lys Thr Thr Ser Ser Met Asp Pro Asn 35 40 Asp Met Met Arg Glu Ile Arg Lys Val Leu Asp Ala Asn Asn Cys Asp Tyr Glu Gln Lys Glu Arg Phe Leu Leu Phe Cys Val His Gly Asp Ala 70 75 Arg Gln Asp Ser Leu Val Gln Trp Glu Met Glu Val Cys Lys Leu Pro

Arg Leu Ser Leu Asn Gly Val Arg Phe Lys Arg Ile Ser Gly Thr Ser

105 Ile Ala Phe Lys Asn Ile Ala Ser Lys Ile Ala Asn Glu Leu Lys Leu 120

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<210> 1095
<211> 214
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (161)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (198)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (206)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1095
Ile Leu Phe Ser Ser Leu Leu Thr Cys Asn Phe Cys Leu Pro Ile Pro
                  5
                                     10
                                                         15
Pro Ser Pro Leu Ser Phe Pro Glu Arg His Leu Gly Ser Tyr Leu Leu
Asp Ser Glu Asn Thr Ser Gly Ala Leu Pro Arg Leu Pro Gln Thr Pro
Lys Gln Pro Gln Lys Arg Ser Arg Ala Ala Phe Ser His Thr Gln Val
     50
Ile Glu Leu Glu Arg Lys Phe Ser His Gln Lys Tyr Leu Ser Ala Pro
65
                     70
                                         75
Glu Arg Ala His Leu Ala Lys Asn Leu Lys Leu Thr Glu Thr Gln Val
Lys Ile Trp Phe Gln Asn Arg Arg Tyr Lys Thr Lys Arg Lys Gln Leu
                               105
Ser Ser Glu Leu Gly Asp Leu Glu Lys His Ser Ser Leu Pro Ala Leu
       115
Lys Glu Arg Pro Ser Pro Gly Pro Pro Trp Ser Pro Cys Ile Thr Ala
                        135
                                            140
Ile Leu Thr Thr His Thr Cys Thr Ala Trp Ala Val Glu Pro Ser Phe
                   150
                                       155
```

Xaa Val Met Pro Ala Gln Val Thr Thr Ile Met Ile Lys Asn Cys Leu 165 170 Pro Gln Gly Val Ser Met Lys Ser Thr Arg Gly Gln Gly Gln Gly Ala 185 Arg Val Cys Thr Pro Xaa Leu Leu Glu Ile Cys Val Glu Xaa Ser Asp 200 Ser Ser Leu Val Arq Gln 210 <210> 1096 <211> 62 <212> PRT <213> Homo sapiens <400> 1096 Ile Arg His Glu Lys Lys Glu Arg Met Lys Glu Arg Lys Glu Lys Lys Glu Arg Lys Glu Lys Gly Lys Lys Glu Arg Lys Glu Arg Lys Glu Arg 20 Lys Arg Glu Lys Glu Arg Arg Lys Arg Lys Gly Ile Pro Gly Ile 35 40 Tyr His Cys Met Ser Lys Gly Arg Val Val Asp Arg His Ser 55 <210> 1097 <211> 48 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1097
Lys Lys His Trp Gly Met Leu Gln Asp Ile Gly Leu Gly Lys Asp Phe
Leu Ser Asn Thr Leu Lys Gly Gln Ala Thr Gln Ala Lys Met Xaa Xaa
Trp Xaa Xaa Xaa Leu Lys Asn Phe Tyr Thr Ala Lys Glu Thr Lys
        35
                            40
```

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<211> 136
<212> PRT
<213> Homo sapiens
</220>

<221> SITE

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1098
Assn ILe Pro Leu Asp Ser Glu Thr His Assn Tyr Gln Ile Val Assn His
1 5 10 15
Asp Gln Lys Leu Leu Lieu Ile Thr Ser Thr Thr Pro Gln Trp Lys Lys
```

25

30

<210> 1098

Asn Arg Val Thr Val Tyr Glu Tyr Asp Thr Arg Glu Asp Gln Trp Ile $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Asn Ile Gly Thr Met Leu Gly Leu Leu Gln Phe Asp Ser Gly Phe Ile $50 \hspace{1cm} 55 \hspace{1cm} 60 \hspace{1cm}$

Cys Leu Cys Ala Arg Val Tyr Pro Ser Cys Leu Glu Pro Gly Gln Ser 65 70 75 80

Fhe Ile Thr Glu Glu Asp Asp Ala Arg Ser Xaa Ser Ser Thr Glu Trp $85 \hspace{1cm} 90 \hspace{1cm} 95$

Asp Leu Asp Gly Phe Ser Glu Leu Asp Ser Glu Ser Gly Ser Ser Ser 100 \$105\$

Ser Phe Ser Asp Asp Glu Val Trp Val Gln Val Ala Pro Gln Arg Asn \$115\$ \$120\$ \$125\$

Ala Gln Asp Gln Gln Gly Ser Leu 130 135

<210> 1099

<211> 37

<212> PRT

<213> Homo sapiens

<400> 109

Arg His Glu Arg Lys Val Lys Lys Arg Lys Lys Glu Arg Asn Lys Gln $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Thr Lys Gln Leu Ala Tyr Ile Tyr Leu Leu Asn Thr Gly Arg Ser Ile \$20\$

His Asn Leu Thr Leu 35

<210> 1100

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1100

Phe Gly Thr Arg Asp Thr Arg Val Lys Glu Arg Gly His Ala Val Ser $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Glu Lys Leu Leu Leu Gly Trp Lys Gly Gln Leu His Lys Gly Cys Ser 20 25 30

Cys Arg Gly Ser Pro Ala Ala Arg Cys Leu Leu Thr Val Pro Arg Leu 35 40 45

Ser Pro Asp Thr Glu Gly Cys Lys Gly Ser Leu Phe Leu Leu Ser Gly 50 60

Ile Gly Lys Leu Tyr His Leu Ser Leu Pro Thr Leu Thr Ser Ala Pro 65 70 75 80

Ala Thr Leu Ser Leu Trp Leu Leu Leu Thr Phe Ser Pro Leu Ile Phe 85 90 95

Ser Pro Asp Gln Val Leu Gly Xaa Ser 100 105

<210> 1101 <211> 93

<212> PRT

<213> Homo sapiens

<400> 1101

Ser Gly Arg Thr Leu Val Leu Arg Leu Ala Tyr Val Ser Arg Thr Val $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Thr Thr Met Ala Pro Glu Val Leu Pro Lys Pro Arg Met Arg Gly Leu 20 25 30

Leu Ala Arg Arg Leu Arg Asn His Met Ala Val Ala Phe Val Leu Ser $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Leu Gly Val Ala Ala Leu Tyr Lys Phe Arg Val Ala Asp Gln Arg Lys $50 \hspace{1cm} 55$

Lys Ala Tyr Ala Asp Phe Tyr Arg Asn Tyr Asp Val Met Lys Asp Phe 65 70 75 80

Glu Glu Met Arg Lys Ala Gly Ile Phe Gln Ser Val Lys 85 90

<210> 1102

<211> 26

```
<212> PRT
<213> Homo sapiens
 <400> 1102
 Phe Gly Thr Ser Ala Pro Pro Arg Pro Ala Asn Phe Cys Ile Phe Gly
                   5
                                      10
                                                          15
 Arg Asp Gly Val Ser Ser Arg Trp Leu Gly
             20
<210> 1103
<211> 51
<212> PRT
<213> Homo sapiens
<400> 1103
Gly Ser Glu Ser Asn Arg Leu Lys Phe Lys Ser Ser Ser Ala Thr Trp
                  5
                                      1.0
Leu Met Leu Ser Glu Pro Gln Arg Pro Gln Leu Leu Asn Arg Gly Asn
             20
                                  25
His Pro His Leu Ser Ser Phe Gly Arg Lys Leu Asn Glu Ile Tyr Trp
                             40
Gly Ser Arg
     50
<210> 1104
<211> 47
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids
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65

7.0

```
<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1104
Lys Arg Tyr Ser Val Leu Ile Leu Cys Lys Lys Xaa Lys Ser Ser Asn
Cys Phe Pro Met Xaa Lys Ile Thr Met Ser Cys Ile Met Leu Leu Ser
                                25
Phe Tyr Val Asn Ile Ser Tyr Xaa Ser Ser Ile Lys Xaa Ile Tyr
        35
                           40
<210> 1105
<211> 72
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1105
Leu Leu Lys Leu Cys Asn Leu Gln Asn Ile Ala Ile Lys Leu His Thr
 1
                                    1.0
Met Phe Ser Ile Ile Leu Ile Asp Leu Pro Tyr Lys His Leu Asn Lys
Lys Tyr Tyr Leu Met Ile Lys Lys Lys Lys Lys Lys Lys Lys Lys
         35
                            40
Lys Lys Lys Lys Lys Arg Glu Lys Lys Lys Lys Lys Lys Lys Lys
     50
                        55
Xaa Gly Gly Gly Xaa Lys Lys Lys
```

```
<210> 1106
<211> 79
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (74)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1106
Gly Leu Ser His Ser Asn Ser Ser Tyr Leu Glu Pro Leu Gly Ser Asp
 1
                 5 . 10
                                                        15
Val Asp Arg Ala Asn Val Lys Phe Thr Glu Asn Thr Cys Val Phe Arg
            20
                                25
Thr Leu Lys Gly Thr Ile Arg Ala Cys Phe Pro Ser Leu Tyr Met His
                            40
Ile Phe Gly Ile Ser Xaa Gly Leu Xaa Asp Val Val Ile Xaa Asn Thr
                        55
                                           60
Ala Arg Met Xaa Ala Val Leu Ile His Xaa Gln Lys Arg Gly Gly
 65
                   70
                                       75
```

<210> 1107 <211> 91

<212> PRT

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<213> Homo sapiens
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1107
Ile Ile Ala Ala Leu Ser Pro Ile Cln Ile Leu Pro Ser Asp Gly Lys
                                                          15
Asp Gln Phe Ser Cys Gly Asn Ser Val Ala Asp Gln Ala Phe Leu Asp
                                  25
Ser Leu Ser Ala Ser Thr Ala Gln Xaa Ser Ser Ser Ala Ala Ser Asn
                             40
Asn His Gln Val Arg Leu Thr Ser Ser Phe Trp Met Trp Leu Ala Leu
     50
                          55
                                              60
Arg Lys Thr Glu Arg Ile Cys Xaa Arg Leu Val Met His Tyr Ser Tyr
 65
Cys His Ser Pro Lys Ala Lys Thr Lys Ser Leu
                 85
<210> 1108
<211> 47
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (46)
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<223> Xaa equals any of the naturally occurring L-amino acids
 <400> 1108
 Glu Val Ile Lys Val Met Asn Thr Cys Gln Cys Ser Gly Phe Thr Pro
 Val Leu Gln His Phe Gly Glu Ala Lys Ala Gly Arg Ser Phe Glu Pro
              20
                                  25
                                                      30
 Gln Asp Xaa Gly Thr Thr Xaa Gly Asn Ile Val Arg Pro Xaa Val
                              40
<210> 1109
<211> 78
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (75)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<222> (77) <223> Xaa equals any of the naturally occurring L-amino acids Trp Asn His Leu His Asp Leu Arg Val Ser Arg Asp Leu Leu Ser Arg 5 10 Ile Leu Lys Glu His Tyr Lys Phe Arg Glu Lys Ile Asn Ile Leu Ile Ile Leu Lys Leu Arg Asn Phe Ser Ser Leu Arg Gly His Lys Val Phe 40 Val Val Tyr Thr Ser Asn Lys Ser Ser Ile Phe Xaa Asn Xaa Trp Xaa 50 Glu Xaa Xaa Trp Tyr Val Lys Lys Arg Pro Xaa Pro Xaa Gly 70 <210> 1110 <211> 62 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (30) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (41) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1110 Thr Trp Ser Leu His Lys Ile Gln Lys Leu Arg Trp Ala Trp Trp Cys Val Pro Ile Val Pro Leu Leu Val Gly Leu Arq Gln Glu Xaa His Leu 25

Ser Pro Gly Gly Arg Gly Tyr Ser Xaa Pro Arg Val His Tyr Cys Thr

60

40 Pro Ala Arg Ala Arg Glu Arg Asp Pro Val Ser Ile Asn Lys

55

35

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<210> 1111
<211> 44
<212> PRT
<213> Homo sapiens
<400> 1111
Phe Met Asn Leu Phe Pro Gly Lys Pro Tyr Asp Ser Thr Val Lys Gly
                 5
                                    10
Val Arg Ile Val Lys Met Val Phe Ser Asp Gln Val Cys Ala His Ala
                                 25
Trp Pro Trp Ile Asp Ser Glu Met Arg Phe Phe Val
        35
                            40
<210> 1112
<211> 263
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1112
Gly Arg Ala Ile Met Ala Ala Ser Arg Leu Glu Leu Asn Leu Val Arg
Leu Leu Xaa Arg Cys Glu Ala Met Ala Ala Glu Lys Arg Asp Pro Asp
            20
Glu Trp Arg Leu Glu Lys Tyr Val Gly Ala Leu Glu Asp Met Leu Gln
        35
                            40
Ala Leu Lys Val His Ala Ser Lys Pro Ala Ser Glu Val Ile Asn Glu
Tyr Ser Trp Lys Val Asp Phe Leu Lys Gly Met Leu Gln Ala Glu Lys
65
                   7.0
                                       75
Leu Thr Ser Ser Ser Glu Lys Ala Leu Ala Asn Gln Phe Leu Ala Pro
Gly Arg Val Pro Thr Thr Ala Arg Glu Arg Val Pro Ala Thr Lys Thr
                               105
```

Val His Leu Gln Ser Arg Ala Arg Tyr Thr Ser Glu Met Arg Ser Glu 120

Leu Leu Gly Thr Asp Ser Ala Glu Pro Glu Met Asp Val Arg Lys Arg 130 135 Thr Gly Val Ala Gly Ser Gln Pro Val Ser Glu Lys Gln Ser Ala Ala 145 150 155 Glu Leu Asp Leu Val Leu Gln Arg His Gln Asn Leu Gln Glu Lys Leu 165 170 Ala Glu Glu Met Leu Gly Leu Ala Arg Ser Leu Lys Thr Asn Thr Leu Ala Ala Gln Ser Val Ile Lys Lys Asp Asn Gln Thr Leu Ser His Ser 195 200 205 Leu Lys Met Ala Asp Gln Asn Leu Glu Lys Leu Lys Thr Glu Ser Glu Arg Leu Glu Gln His Thr Gln Lys Ser Val Asn Trp Leu Leu Trp Ala 230 235 Met Leu Ile Ile Val Cys Phe Ile Phe Ile Ser Met Ile Leu Phe Ile 245 250 255 Arg Ile Met Pro Lys Leu Lys 260 <210> 1113 <211> 40 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (4)

<220>

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<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1113
Xaa Ala Xaa Xaa Trp Pro Pro Pro Lys Gly Asn Lys Ser Trp Ser
Ser Thr Ala Val Ala Ala Ala Leu Glu Leu Val Asp Pro Pro Gly Cys
Arg Gln Lys Gly Xaa Phe Lys Ile
         35
<210> 1114
<211> 125
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1114
Arg Lys Arg Leu Ala Phe Trp Thr Thr Gly Ile Arg Asp Trp Leu Thr
                                    10
Trp Arg Thr His Ser Val Cys Ala Glu Xaa Arg Ala Leu Thr Ser Ala
Glu Ala Glu Val Gly Ala Cys Pro Arg Gly Leu Thr Arg Phe Ala Ser
         35
                            40
                                                45
Arg Pro Gln Pro Leu His Leu Leu Lys Ala Gln Glu Met Ile Arg Leu
                        55
Lys His Pro Pro Ile Leu Leu Phe Cys Leu Gly Trp Lys Thr Trp Pro
                    70
Arg Ser Trp Arg Pro Leu Leu His Leu Pro Asp Ser Gln Glu Ser Ser
                85
                                   90
Asp Gln Ser Cys Arg Thr Leu Leu Leu Pro Leu Ala Leu Leu Pro Phe
```

100 105 110 Ser Ser Ser Trp Gly Pro Ser Leu Val Pro His Ser Leu 120 <210> 1115 <211> 109 <212> PRT <213> Homo sapiens <400> 1115 Ile Asp Lys Arg Val Pro Cys Asn Gln Leu Lys Ser Val Leu Cys Val 5 Cys Phe Val Ser Gly Ala Glu Tyr Asp Asn Leu Pro Thr Val Pro Leu 25 Phe Glu Val Gly Leu Ala Leu Glu Ser Tyr Cys Lys Cys Leu Ala Cys 40 Met Ile Val Pro Gly His Pro Thr Leu Glu Phe Ala Pro Ser Cys Phe 50 55 60 Ser Glu Asp Ala Val Asn Arg Phe Arg Phe Tyr Cys Leu Trp Ile Trp 65 Gly Val Thr Val Ala Leu Phe Thr Phe Leu Ile Lys Ile His Met Lys 90 Thr Arg Lys Lys Trp Leu Phe Leu Pro Arg Leu Cys Thr 100 105 <210> 1116 <211> 42 <212> PRT <213> Homo sapiens <220>

<220>
<221> SITE
<222> (2)
<221> Saa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<220>
<221> SITE
<222> (3)
<221> SITE
<222> (5)
<221> Saa equals any of the naturally occurring L-amino acids

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WO 00/55174 920 PCT/US00/05988
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<400> 1116
 Gln Xaa Glu Leu Xaa Leu Lys Lys Lys Lys Ile Ile Cys Lys Ile
                                    10
 Asn Ser Gly Ile Val Val Leu Phe Lys Glu Met Phe Cys Lys Leu Ser
                                 25
 Ser His Tyr Ile Ile Phe Ile Val Leu Ser
         35
<210> 1117
<211> 62
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1117
Lys Xaa Ala Thr Pro Arg Pro Pro Gly Glu Thr Arg Pro Arg Met Pro
Arg Leu Phe Leu Phe His Leu Leu Glu Phe Cys Leu Leu Leu Asn Gln
                                25
Phe Ser Arg Ala Val Ala Ala Lys Trp Lys Asp Asp Val Ile Lys Leu
        35
                            40
Cys Gly Arg Glu Leu Val Arg Ala Gln Ile Ala Ile Leu Gly
     50
                        55
<210> 1118
<211> 80
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 1118
Pro Ser Val Glu Trp Glu Gln Gly His Ser Glu Arg Ala Glu Ser Pro

His Pro Pro Thr Leu Gln Gln Ala Ala Ala Gly Arg Leu Val Asn Cys \$20\$

Arg Ala Gly Thr Gln Gln Gln Ala Ala Gly Thr Pro Xaa Leu Leu Gln $35 \hspace{1cm} 40 \hspace{1cm} 45$

Tyr Glu Arg Ile Thr Ile Gly Thr Leu Phe Met Ser Phe Met Asn Xaa 65 70 75 80

<210> 1119

<211> 73

<212> PRT

<213> Homo sapiens

<400> 1119

Thr Gln Gln Ser Val Pro Val Ile Val His Pro Gly Val Ala Leu Leu $1 \hspace{1.5cm} 15$

Ile Pro Ser Gly Met Tyr Leu Pro Ser Glu Leu His Phe Phe Lys Met \$20\$

Leu Trp Val Val Gly Trp Glu Thr Ile Leu Gln Pro Ser Ser Asp Leu 35 40 45

Ile Asn Ser Leu Arg Asp Cys Lys Ala Glu Ser Thr Ser Gly His Ser 50 55 60

Trp Glu Thr Asp Pro Leu Val Met Lys 65 70

<210> 1120

<211> 77

<212> PRT <213> Homo sapiens

<220>

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<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1120
Thr Ser Ser Ser Tyr Ser Asp Lys Gln Asp Thr Pro Pro His Pro Thr
Cys Ser Ile Ser Leu Ser Pro Leu Pro Gln Thr His Leu His Cys Ser
                                 25
Ser Cys Arg Gly Ser Arg Lys Xaa Ile Leu Lys Ile Thr Arg Val Gly
         35
                            40
Xaa Gly Ala Val Xaa Ser Gly Cys Xaa Xaa Gln His Phe Gly Xaa Gly
Pro Gly Lys Ala Val His Phe Gly Val Lys Gly Phe Leu
                    70
<210> 1121
<211> 66
<212> PRT
<213> Homo sapiens
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<213> Homo sapiens

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<220>
 <221> SITE
 <222> (2)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Pro Xaa Leu Tyr Tyr Val Lys Leu Pro Ile Lys Tyr Phe Tyr Asp Tyr
Arg Phe Cys Ile Phe Val Tyr Asn Tyr Leu Lys Ser Phe Met Leu Tyr
Leu Glu Phe Gln Pro Arg Asn His Thr Val Leu Lys Phe Ser Trp Gly
                             40
Leu Leu Leu Ser Leu Asn His Leu Leu Asn Ile Tyr Leu Pro Lys Gly
                         55
Asp Phe
 65
<210> 1122
<211> 41
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1122
Ser Gln His Phe Gly Asn Ala Glu Val Ser Gly Ser Pro Glu Val Arg
Ser Ser Arg Pro Ala Trp Ala Asn Met Val Lys Pro His Phe Leu Leu
             20
                                 25
Lys Lys Lys Leu Gly Gly Xaa
        35
<210> 1123
<211> 45
<212> PRT
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<220>
<221> SITE
 <222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids
Lys Lys Lys Lys Gly Cys Thr Lys Ile Ser Phe Xaa Gln Arg Leu Xaa
                                     10
Lys Arg Lys Lys Lys Arg Asn Thr Cys Val Leu Lys Thr Ile Cys Ile
Phe Ser Phe Leu Asp His Thr Val Ala Asn Tyr Cys Tyr
                             40
<210> 1124
<211> 227
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1124
Arg Leu Pro Arg Asn Ile Thr Pro Glu Trp Leu Gln Pro Arg Arg Pro
 1
                  5
                                     10
                                                         15
Gly Val Pro Cys Phe Trp Ile Gln Phe Ser Xaa Val His Gly Phe Pro
             20
                                 25
Lys Glu Trp Ser Cys Xaa Phe Phe Gly Ile Val Asn Ile Leu Leu Lys
Tyr Gly Ala Gln Ile Asn Glu Leu His Leu Ala Tyr Cys Leu Lys Tyr
    50
                         55
Glu Lys Phe Ser Ile Phe Arg Tyr Phe Leu Arg Lys Gly Cys Ser Leu
```

65 70 75 80 Gly Pro Trp Asn His Ile Tyr Glu Phe Val Asn His Ala Ile Lys Ala 85 Gln Ala Lys Tyr Lys Glu Trp Leu Pro His Leu Leu Val Ala Gly Phe 100 105 Asp Pro Leu Ile Leu Cys Asn Ser Trp Ile Asp Ser Val Ser Ile 120 Asp Thr Leu Ile Phe Thr Leu Glu Phe Thr Asn Trp Lys Thr Leu Ala 135 Pro Ala Val Glu Arg Met Leu Ser Ala Arg Ala Ser Asn Ala Trp Ile 150 Leu Gln Gln His Ile Ala Thr Val Pro Ser Leu Thr His Leu Cys Arg 170 Leu Glu Ile Arg Ser Ser Leu Lys Ser Glu Arg Leu Arg Ser Asp Ser 180 185 Tyr Ile Ser Gln Leu Pro Leu Pro Arg Ser Leu His Asn Tyr Leu Leu Tyr Glu Asp Val Leu Arg Met Tyr Glu Val Pro Glu Leu Ala Ala Ile 215 Gln Asp Gly 225 <210> 1125 <211> 74 <212> PRT <213> Homo sapiens <400> 1125 Asn Val Ala Cys Asn Thr Val Leu Pro Ala Lys Phe Ser Thr Phe Cys Asn Leu Phe Tyr Phe Phe Gly Cys Lys Ala Phe Leu Leu Ser Ile Val 20 Ile Leu Tyr Met Phe Cys Pro Ser Cys Ile Val Met Phe Gln Ser Ile 35 Ile Gln Leu Trp Leu Leu Lys Ser Tyr Ser Cys Glu Asp Leu Pro Leu

55

```
Phe Leu Leu Asp Cys Phe Ser Val Leu Tvr
 65
<210> 1126
<211> 44
<212> PRT
<213> Homo sapiens
<400> 1126
Ile Ser Ser Thr Pro Ser Leu Thr Gln Ile Leu Val Phe Ile Met Asp
Phe Phe Phe Lys Leu Val Tyr Leu Ile Leu Ser Phe His Phe Trp Gln
             20
                                 25
His Met Asp Asp Phe Ile Phe Asn Asn His Ile Ser
         35
                            40
<210> 1127
<211> 38
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1127
Leu Ser Pro Phe Glu Ala Ser Thr Asp Trp Xaa Lys Gln Ile Xaa Lys
Trp Asp Val Thr Gly Leu Ile Ser Thr Asn Arg Leu Phe Thr Thr Pro
            20
                                25
Ser Trp Xaa Pro Val Ser
```

35

<210> 1128

<211> 70

<212> PRT

<213> Homo sapiens

<400> 1128

Gly Thr Glu Cys Thr His Gly Lys Lys Pro Cys Phe Val Phe Cys Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Phe Phe Leu Ser Pro Phe Leu Ser Phe Met Ala Gly Asp Met Ile $20 \hspace{1cm} 25 \hspace{1cm} 30$

Tyr Cys Ser His Pro Ser Trp Gly Leu Ile His His Thr Arg Val Ala $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Ser Ile Ile Lys Gly Arg 65 70

<210> 1129 <211> 50

<211> 30 <212> PRT

<213> Homo sapiens

<400> 1129

His Leu Pro Leu Ser Glu Thr His Ser Pro Ile Leu Asn Ala Tyr Ala 1 5 10 15

Val Gly Tyr His Leu Pro Leu Glu Val Leu Glu Ala Ile Ser Cys Arg 20 25 30

Ser Arg Val Ala Met Gly Leu Asn Tyr Tyr Tyr Pro Pro Lys Met Leu \$35\$ 40 45

Cys Leu 50

<210> 1130

<211> 76

<212> PRT

<213> Homo sapiens

<400> 1130

Phe Val Lys Gly Val Asn Cys Leu Ile Tyr Leu Thr Arg Phe Phe Lys 10

Gln Ile Leu Ile Gly His Ala Leu His Ala Arg Leu Trp Ala Trp Tyr

Leu Arg Val Leu Thr Gly Glu Ala Gly Ser Gly Asn Lys His Met Cys

Asn Cys Cys Val Asp Ser Leu Ile Gly Arg Lys Ser Ala Asn Lys Glu 50

Ala Asp Lys Leu Glu Asn Glu Arg Lys Val Met Cys 70

<210> 1131

<211> 121

<212> PRT <213> Homo sapiens

<400> 1131

Thr Pro Tyr Tyr Leu Arg Val Arg Arg Lys Asn Pro Val Thr Ser Thr

Tyr Ser Lys Met Ser Leu Gln Leu Tyr Gln Val Asp Ser Arg Thr Tyr

Leu Leu Asp Phe Arg Ser Ile Asp Asp Glu Ile Thr Glu Ala Lys Ser 35 40

Gly Thr Ala Thr Pro Gln Arg Ser Gly Ser Val Ser Asn Tyr Arg Ser 55

Cys Gln Arg Ser Asp Ser Asp Ala Glu Ala Gln Gly Lys Ser Ser Glu

Val Ser Leu Thr Ser Ser Val Thr Ser Leu Asp Ser Ser Pro Val Asp

Leu Thr Pro Arg Pro Gly Ser His Thr Ile Glu Phe Phe Glu Met Cys 100 105

Ala Asn Leu Ile Lys Ile Leu Ala Gln 115 120

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<210> 1132
 <211> 63
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (60)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
 <222> (61)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
 <222> (63)
 <223> Xaa equals any of the naturally occurring L-amino acids
<400> 1132
Lys Thr Arg Gly Lys Leu Asp Lys Glu Pro Arg Pro Thr Gly Val Cys
                                     10
Cys Leu Gln Glu Thr His Leu Thr Cys Gly Gly Ile His Arg Leu Lys
             20
                                 25
Ile Lys Glu Trp Arg Lys Ile Phe Gln Ala Asn Gly Lys Gln Lys Lys
Ala Gly Val Ala Leu Leu Ser Asp Lys Thr Xaa Xaa Ala Xaa
     50
                         55
<210> 1133
<211> 46
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1133
Pro Ser Gln Val Ser Leu Asn His Pro Asp Asp Leu Pro Val Glu Arg
                                     10
Ser Tyr Pro Ser Gln Val Tyr Phe Leu Met Arg Thr Gly His Ser Trp
                                25
```

```
Asp Asp Leu Pro Ala Glu Arg Ser Asp Ile Phe Trp Val Xaa
                            40
<210> 1134
<211> 65
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1134
Asn Ser Ala Arg Glu Val Ile Tyr Met Ile His Ser Gln Glu Leu Leu
                                    10
Asp Arg Lys Xaa Gln Gly Pro Gln Pro Leu Cys Pro Leu Tyr Pro Gln
             20
Met Ala Leu Gly Ile Asn Ser Ser Gly Ile Ala Leu Lys Asn Ser Ala
Ser Cys Phe Ala Glu Cys His Gly His Val Ile Leu Arg Ser His Asn
                        55
Thr
 65
<210> 1135
<211> 30
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1135
Ser Cys Val Arg Gly Asn Leu Glu Pro Tyr Ile Asn Thr Tyr Ile Ile
                 5
                                    10
                                                       15
Lys Gly Lys Ile Leu Lys Val Asn Gly Xaa Lys Ala Ser Ile
```

25

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<210> 1136
 <211> 51
 <212> PRT
 <213> Homo sapiens
<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1136
Pro Glu Ser Arg His Ile Leu Val Cys Thr Gln Leu Trp Ala Lys Xaa
                   5
                                      10
                                                          15
Arg Trp Arg His Leu Ser Ser His Ala Glu Leu His Ser Arg Leu Arg
                                  25
Thr Trp Val Gly Ser Ser Lys Val Ile Ala Lys Ala Pro Leu Ser Gly
                             40
Gly Tyr Thr
     50
<210> 1137
<211> 48
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221>.SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1137
Ser Arg Leu Ser Phe Gln Asp Leu Ala Pro Ala Leu Gly Met Val Gly
 1
                                     10
                                                         15
```

```
Gly Lys Ala Lys Asn Leu Gly Ser Xaa Xaa Pro Trp Ala Leu Lys Asn
Val Val Leu Phe Lys Glu Gln Gly Ser Xaa Gln Gly Cys Phe Trp Gly
                            40
<210> 1138
<211> 53
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (53)
<223> Xaa equals any of the naturally occurring L-amino acids
Lys Met Cys Leu Phe Gln Leu Ser Gln Xaa Gly Asn Val Thr Gly Ile
Arg Trp Val Lys Ala Arg Asp Ala Ala Arg His Ser Thr Val His Arg
                                 25
Thr Thr Pro Thr Thr Lys Asn Tyr Leu Ala Gln Asn Val Asn Asn Ala
                           40
Glu Val Glu Lys Xaa
     50
<210> 1139
<211> 86
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
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<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (54) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1139 Ile Gly Phe Gly His Asp Thr Asp Phe Leu Glu Ala Arg Cys Cys Phe 5 10 15 Xaa Ser Gly Met Gly Val His Asp Cys Pro Glu Gln Pro Arg Ser Gln 20 25 Phe Phe Arg Arg Leu Ser Ala Ile Ser Ala Gln Ala Phe Thr Gly Gln 40 Gly Gln Lys Gln Leu Xaa Gly Val Gly Gly Ala Ser Ser Thr Ala Ala Trp Pro Gln Glu Ile Gly Cys Ser Ser Ser Ser Ala Cys Gly Met Val 65 70 75 Arg Asn Asn Leu Gly Gly 85 <210> 1140 <211> 93 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (12) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1140 Ile Lys Lys Tyr Ile Phe His Phe Tyr Phe Ile Xaa Asn His Asn Tyr Leu Leu Arg Arg Cys Met His Leu Leu Asp Thr Val Gln Leu Leu Thr 20 25 Trp Asn Glu Ile Gly His Cys Cys Pro His Phe Leu Leu His Val Gly 35 Val His Ile Val Leu Asp Phe Leu Ser Asp Gly Leu Glu Asn Pro Val

Ser Gln Lys Tyr Glu Ile Ile Arg Arg Ile Ile Val Gln Ser Tyr Val

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<210> 1141
<211> 63
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (60)
<223> Kaa equals any of the naturally occurring L-amino acids
<400> 1141
Lys Ile Ile Ile Phe Ser Val Val His Asn Asn Val Leu Asn Ile Leu
                  5
                                     10
                                                         15
Leu Ile Lys Gly Ala Met Ser Leu Cys Met Val Leu Asn Val Ser Cys
Val Pro Phe Ala Gln Leu Arg Ile Leu Gln Leu Gly Phe Asn Glu Trp
Gly His Gly Ile Ile Met Gly Xaa Cys Lys Lys Xaa Lys Arg Gly
     50
                         55
```

Glu Arg Met Asn Tyr Leu Thr Ser Ser Ser Arg Asp Val

<210> 1142 <211> 57

<212> PRT

<213> Homo sapiens

<220> <221> SITE

<222> 511E

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

```
<400> 1142
Phe Cys Val Glu Leu Ile Ser Gln Cys Arg Gly Lys Asn Ser Leu Gly
                                     10
Ser Ser Leu Asp Ile Thr Val His Arg Ala Ser His Gln Asp Asp Pro
Thr Phe Tyr Gly Gly Pro Gly Ile Gly Ser Pro Glu Pro Ile Thr Gln
Xaa Pro Ser Asp Gly Trp Gly Xaa Trp
     50
<210> 1143
<211> 203
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (107)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (171)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (174)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (180)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<221> SITE <222> (184) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (190) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1143 Ala Leu Ala Leu Cys Gln Cys Gly Val Pro Ala Cys Ser His Val Pro Met Trp Ser Ala Arg Leu Leu Met Cys Pro Cys Gly Val Pro Ala Cys 20 25 Ser His Met Xaa Met Arg Ser Ala Xaa Leu Leu Thr His Ala His Val Glu Cys Pro Pro Ala His Thr Cys Pro Cys Gly Val Pro Ala Cys Ser His Thr Cys Pro Cys Gly Val Pro Thr Cys Ser Cys Ala His Val Glu 65 70 75 Cys Pro Pro Ala His Met Cys Arg Cys Gly Val Pro Pro Ala His Thr 85 90 Arg Ala His Val Glu Cys Pro Pro Ala His Xaa Cys Arg Cys Gly Val 105 Pro Ala Cvs Ser His Val Pro Met Arg Ser Ala Arg Leu Leu Thr Arg 120 115 Ala Asp Ala Glu Cys Pro Pro Ala His Thr Cys Pro Cys Gly Val Pro 130 135 Ala Cys Ser His Val Pro Thr Arg Ser Ala Arg Leu Leu Thr Arg Ala 150 Asp Ala Glu Cys Pro Pro Ala His Thr Cys Xaa Arg Gly Xaa Pro Ala

170

190

Cys Ser His Xaa Pro Thr Arg Xaa Ala Arg Leu Leu Thr Xaa Ala His

185

Val Glu Cys Arg Leu Leu Thr Leu Pro Met Trp 195 200

```
<210> 1144
<211> 62
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids
Lys Val Leu Leu Pro Tyr Leu Cys Ser Ser Phe Pro Met Ala Glu Phe
Cys Asn Tyr Ile Gln Asn Ile Val Tyr Ile Leu Phe Leu Lys Leu Tyr
                                25
Tyr Ile Gly Trp Ile Leu Leu Xaa Trp Gly Thr Gly Ala Tyr Ile Gln
Gly Ser Phe Leu Ser Thr Cys Leu Ser Thr Ile Cys Cys Val
     50
                         55
<210> 1145
<211> 105
<212> PRT
<213> Homo sapiens
<400> 1145
Asn Glu Ser Leu Thr Gln Phe His Ala Thr Phe Cys Leu Phe Ser Lys
                5
Glu Arg Leu Leu Gly Leu Ser Val Thr Arg His Val Trp Ile Ala Ser
             20
                                25
His Ile His Ile Met Pro Gly Ser Pro Gln Pro Thr His Val Leu Glu
Val Ala Thr Cys Gln Val Ser Val Phe Ser Leu Asn Ser Lys Trp Val
```

Phe Val Pro Phe Ser Ile Ser Leu Thr His Met Cys Ser Leu Ser Thr 85 90 95

50 55 60
Asn His Met Asn Ser Thr Gly Pro Cys Glu Asn Gly Val Lys Ala Ser

70

Ala Glu Asp Arg Phe Val Cys Ala Leu 100 105

<210> 1146 <211> 243 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (240) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1146 Lys Glu Thr Leu Glu Thr Ile Ser Asn Glu Glu Gln Thr Pro Leu Leu 10 Lys Lys Ile Asn Pro Thr Glu Ser Thr Ser Lys Ala Glu Glu Asn Glu Lys Val Asp Ser Lys Val Lys Ala Phe Lys Lys Pro Leu Ser Val Phe 35 40 Lys Gly Pro Leu Leu His Ile Ser Pro Ala Glu Glu Leu Tyr Phe Gly Ser Thr Glu Ser Gly Glu Lys Lys Thr Leu Ile Val Leu Thr Asn Val 70 75 Thr Lys Asn Ile Val Ala Phe Lys Val Arg Thr Thr Ala Pro Glu Lys 85 Tyr Arg Val Lys Pro Ser Asn Ser Ser Cys Asp Pro Gly Ala Ser Val 100 105 Asp Ile Val Val Ser Pro His Gly Gly Leu Thr Val Ser Ala Gln Asp 120 Arg Phe Leu Ile Met Ala Ala Glu Met Glu Gln Ser Ser Gly Thr Gly 130 135 140 Pro Ala Glu Leu Thr Gln Phe Trp Lys Glu Val Pro Arg Asn Lys Val 145 Met Glu His Arq Leu Arq Cys His Thr Val Glu Ser Ser Lys Pro Asn 170 Thr Leu Thr Leu Lys Asp Asn Ala Phe Asn Met Ser Asp Lys Thr Ser 180 185 190

Glu Asp Ile Cys Leu Gln Leu Ser Arg Leu Leu Glu Ser Asn Arg Lys

WO 00/55174 939 PCT/US00/05988

205

Leu Glu Asp Gln Val Gln Arg Cys Ile Trp Phe Gln Gln Leu Leu Leu 210 215 220 Ser Leu Thr Met Leu Leu Leu Ala Phe Val Thr Ser Phe Phe Tyr Xaa 230 235 Leu Tyr Ser <210> 1147 <211> 58 <212> PRT <213> Homo sapiens <400> 1147 Ser Val Lys Met Met Tyr Cys Ile Leu Lys Tyr Ser Asn Cys Ala Phe 5 Leu Tyr His Leu Gln Tyr Glu Lys Cys Gln Tyr Leu Val Pro Phe Ser 20 25 Gly Thr Ile Arg Phe Leu Leu Thr Leu Phe Ser Pro Leu Thr His Val 40

200

<210> 1148

<211> 73

<212> PRT

<213> Homo sapiens

Ile Ser His Ser Asn Gln Glu Ser Arg Glu 50 55

195

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1148

Xaa Xaa Asn Gly Leu Gly Ser Val Lys Asp Gly Glu Pro His Phe Val

```
Val Val His Cys Thr Gly Tyr Ile Lys Ala Trp Pro Gln Gln Val Phe
             20
Pro Ser Gln Met Met Thr Gln Pro Glu Val Phe Gln Glu Met Leu Ser
         35
                             40
                                                 45
Met Leu Gly Asp Gln Ser Asn Ser Tyr Asn Asn Glu Glu Phe Pro Asp
Leu Thr Met Phe Pro Pro Phe Ser Glu
 65
                    7.0
<210> 1149
<211> 79
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1149
Val Lys Trp Val Val Ser Phe Asn Ile Gln Asn Asn His Met Xaa Tyr
                  5
 1
                                    10
Xaa Leu Pro Leu Ser Phe Pro Phe Val Gln Met Arg Lys Val Arg Leu
                                 25
Thr Glu Val Asn Trp Pro Arg Val Pro Gln Leu Val Ser Ala Glu Val
                            40
Gly Xaa His Asn Gln Ile Cys Ser Ala Xaa Asn Leu Cys Gln Ile Ser
```

50 55 60

Ser Lys Val Leu Gln Arg Ala Arg His Val Tyr Phe Ile Pro Ile 65 70 75

<210> 1150

<211> 138

<212> PRT

<213> Homo sapiens

<400> 1150

His Ser Glu Ile Gln Ser Val Cys Leu Thr Arg Leu Phe Asp Phe Lys $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ile Phe Cys Arg Lys Cys Phe Glu Asn Phe Glu Tyr Leu Lys Met Ala $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Gly Val Val Leu His Phe Ala Ser Cys Ser Asp Thr Leu Phe Tyr Leu 35 40 45

Tyr Arg Tyr Ser Glu Phe Leu Phe Phe Ser Thr Cys Cys Thr Leu Ser 50 60

Lys Ala Lys Arg Lys Leu Ile Leu Gly Ser Arg Lys Ala Glu Ala Phe 65 70 75 80

Gly Glu Met Glu Thr Arg Met Cys Lys Asn Glu Thr Thr Thr Ser Arg \$85\$ 90 95

Ile Lys Lys Lys Lys Cys Gln Ser Ser Arg Val Leu Ser Asp Val Gln $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Glu Gly Gly Gly Ile Ile Phe Met Glu His Ile Leu Trp Asn Thr Ala 115 \$120\$

Ile Arg Met Ser Glu Lys Leu Ile Cys Ser 130 135

<210> 1151

<211> 489

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1151 Arg Pro Arg Thr Arg Ala Pro Arg Gly Ala Arg Ser Ala Cys Thr Arg Gly Xaa Arg Arg Arg Pro Val Pro Ser Leu Lys Val Leu Ser Pro Phe Ala Val Val Gln Met Arg Lys Lys Trp Lys Met Gly Gly Met Lys Tyr Ile Phe Ser Leu Leu Phe Phe Leu Leu Leu Glu Gly Gly Lys Thr Glu 50 Gln Val Lys His Ser Glu Thr Tyr Cys Met Phe Gln Asp Lys Lys Tyr Arg Val Gly Glu Arg Trp His Pro Tyr Leu Glu Pro Tyr Gly Leu Val Tyr Cys Val Asn Cys Ile Cys Ser Glu Asn Gly Asn Val Leu Cys Ser 105 Arg Val Arg Cys Pro Asn Val His Cys Leu Ser Pro Val His Ile Pro 120 His Leu Cys Cys Pro Arg Cys Pro Glu Asp Ser Leu Pro Pro Val Asn Asn Lys Val Thr Ser Lys Ser Cys Glu Tyr Asn Gly Thr Thr Tyr Gln 145 150 155 His Gly Glu Leu Phe Val Ala Glu Gly Leu Phe Gln Asn Arg Gln Pro 170 Asn Gln Cys Thr Gln Cys Ser Cys Ser Glu Gly Asn Val Tyr Cys Gly 185 Leu Lys Thr Cys Pro Lys Leu Thr Cys Ala Phe Pro Val Ser Val Pro 195 200 205 Asp Ser Cys Cys Arg Val Cys Arg Gly Asp Gly Glu Leu Ser Trp Glu 210 215 His Ser Asp Gly Asp Ile Phe Arg Gln Pro Ala Asn Arg Glu Ala Arg 230

His Ser Tyr His Arg Ser His Tyr Asp Pro Pro Pro Ser Arg Gln Ala 245 250 255

Gly Gly Leu Ser Arg Phe Pro Gly Ala Arg Ser His Arg Gly Ala Leu

260 265 270

Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn 275 280 285

Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr

Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val 305 310 315 320

Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys Lys Lys

Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln Lys Ile Asp 340 345

Gly Lys Cys Cys Lys Val Cys Pro Glu Glu Leu Pro Gly Gln Ser Phe \$355\$

Asp Asn Lys Gly Tyr Phe Cys Gly Glu Glu Thr Met Pro Val Tyr Glu 370 375 380

Ser Val Phe Met Glu Asp Gly Glu Thr Thr Arg Lys Ile Ala Leu Glu 385 \$390\$

Thr Glu Arg Pro Pro Gln Val Glu Val His Val Trp Thr Ile Arg Lys \$405\$ \$410\$ \$415

Gly Ile Leu Gln His Phe His Ile Glu Lys Ile Ser Lys Arg Met Phe \$420\$

Glu Glu Leu Pro His Phe Lys Leu Val Thr Arg Thr Thr Leu Ser Gln \$435\$

Trp Lys Ile Phe Thr Glu Glu Glu Ala Gln Ile Ser Gln Met Cys Ser 450 \$450\$

Ser Arg Val Cys Arg Thr Glu Leu Glu Asp Leu Val Lys Val Leu Tyr 465 470 475 480

Leu Glu Arg Ser Glu Lys Gly His Cys 485

<210> 1152

<211> 48

<212> PRT

<213> Homo sapiens

40

<210> 1153

<211> 48

<212> PRT

<213> Homo sapiens

35

<400> 1153

Thr Ile Val Arg Asp Gly Ser Asn Asp Val Ile Cys Glu Asn Ser His $1 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

His Leu Pro Val Arg Gln Asn Leu Leu Lys Pro Pro Glu Ser Asn Leu 20 25 30

Asp Tyr Ile Arg Pro Phe Phe Thr His Lys Lys Ile Leu Tyr Gly Ile 35 40 45

<210> 1154

<211> 344

<212> PRT

<213> Homo sapiens

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<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE
<222> (88)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (96)
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (314)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1154
Ser Lys Lys Leu Thr Arg Pro Leu Val Met Lys Thr Gly Arg Pro Ala
                  5
 1
Gly Lys Gly Ser Ile Thr Ile Ser Ala Glu Glu Ile Lys Asp Asn Arq
             20
                                 25
Val Val Leu Phe Glu Met Glu Ala Arg Lys Leu Asp Asn Lys Asp Leu
                             40
Phe Gly Lys Ser Asp Pro Tyr Leu Glu Phe His Lys Gln Thr Ser Asp
     50
                         55
                                            60
Gly Asn Trp Leu Met Val His Arg Thr Glu Val Val Lys Asn Asn Leu
65
                     70
Asn Pro Val Trp Xaa Pro Phe Xaa Ile Ser Leu Asn Ser Leu Cys Xaa
                                     90
Gly Asp Met Asp Lys Thr Ile Lys Val Glu Cys Tyr Asp Tyr Asp Asn
            100
                                105
                                                    110
Asp Gly Ser His Asp Leu Ile Gly Thr Phe Gln Thr Thr Met Thr Lys
        115
                            120
Leu Lys Glu Ala Ser Arg Ser Ser Pro Val Glu Xaa Glu Cys Ile Asn
                        135
Glu Lys Lys Arg Gln Lys Lys Ser Tyr Lys Asn Ser Gly Val Ile
145
                   150
                                        155
                                                            160
```

Ser Val Lys Gln Cys Glu Ile Thr Val Glu Cys Thr Phe Leu Asp Tyr

WO 00/55174 946 PCT/US00/05988

165 170 175 Ile Met Gly Gly Cys Gln Leu Asn Phe Thr Val Gly Val Asp Phe Thr 185 Gly Ser Asn Gly Asp Pro Arg Ser Pro Asp Ser Leu His Tyr Ile Ser 200 Pro Asn Gly Val Asn Glu Tyr Leu Thr Ala Leu Trp Ser Val Gly Leu 215 Val Ile Gln Asp Tyr Asp Ala Asp Lys Met Phe Pro Ala Phe Gly Phe 225 230 Gly Ala Gln Ile Pro Pro Gln Trp Gln Val Ser His Glu Phe Pro Met 245 250 Asn Phe Asn Pro Ser Asn Pro Tyr Cys Asn Gly Ile Gln Gly Ile Val 265 Glu Ala Tyr Arg Ser Cys Leu Pro Gln Ile Lys Leu Tyr Gly Pro Thr 280 Asn Phe Ser Pro Ile Ile Asn His Val Ala Arg Phe Ala Ala Ala Ala 295 Thr Gln Gln Gln Thr Ala Ser Gln Tyr Xaa Val Leu Leu Ile Ile Thr 310 315 Asp Gly Val Ile Thr Asp Leu Asp Glu Thr Arg Gln Ala Ile Val Asn

Ala Ser Ser Cys Leu Cys Pro Ser 340

325

<210> 1155 <211> 120

<212> PRT

<213> Homo sapiens

<400> 1155

Tyr Phe Ile Glu Gly Leu Cys Ala Lys Asn Tyr Ala Tyr Leu Tyr Ile 1 5 10 15

330

Gly Gln Leu Ser Leu Ile Ile Tyr Leu Leu Lys Leu His Val Tyr His
20 25 30

Ile Ser Leu Ser Gly His Ile Gln Cys His Val Asp Val Pro Leu Ser

Phe Ile Glu Lys Leu Pro His Ser Pro Cys Leu Leu Phe Ser Ala Met 50 55 60

Pro Gln Gly Ser Glu Leu Ser Thr Thr Asp Ser Cys Gly Phe Ser Glu 65 70 75 80

Ala Ala His Cys Gln Gly Gln Ala Glu Arg Gly Pro Ala Cys Cys Gly 85 90 95

Gly Cys Leu Ala Gln Met Ser Ile Tyr Leu Pro Pro Ser His Leu Ala 100 105 110

Ser Cys Pro Leu Asp Met Cys Cys 115 120

<210> 1156

<211> 469

<212> PRT

<213> Homo sapiens

<400> 1156

Asp Ser Gln Ser Arg Pro Leu Gln Ser Leu Arg Gln Leu Ala Leu Arg 20 25 30

Val Gly Val Ala Pro Ala Ala Ala Met Ser Gly Gly Val Tyr Gly Gly 35 40 45

Ala Gly Tyr Ala Gly Glu Asp Cys Pro Lys Val Asp Phe Pro Thr Ala 65 70 75 80

Ile Gly Met Val Val Glu Arg Asp Asp Gly Ser Thr Leu Met Glu Ile $85 \hspace{1cm} 90 \hspace{1cm} 95$

Asp Gly Asp Lys Gly Lys Gln Gly Gly Pro Thr Tyr Tyr Ile Asp Thr $100 \\ 105 \\ 110$

Asn Ala Leu Arg Val Pro Arg Glu Asn Met Glu Ala Ile Ser Pro Leu 115 120 125

Lys Asn Gly Met Val Glu Asp Trp Asp Ser Phe Gln Ala Ile Leu Asp 130 135 140

His Thr Tyr Lys Met His Val Lys Ser Glu Ala Ser Leu His Pro Val 145 Leu Met Ser Glu Ala Pro Trp Asn Thr Arg Ala Lys Arg Glu Lys Leu 170 Thr Glu Leu Met Phe Glu His Tyr Asn Ile Pro Ala Phe Phe Leu Cys 180 185 Lys Thr Ala Val Leu Thr Ala Phe Ala Asn Gly Arg Ser Thr Gly Leu 200 Ile Leu Asp Ser Gly Ala Thr His Thr Thr Ala Ile Pro Val His Asp 215 Gly Tyr Val Leu Gln Gln Gly Ile Val Lys Ser Pro Leu Ala Gly Asp 225 230 235 Phe Ile Thr Met Gln Cys Arg Glu Leu Phe Gln Glu Met Asn Ile Glu 250 Leu Val Pro Pro Tyr Met Ile Ala Ser Lys Glu Ala Val Arq Glu Gly 265 Ser Pro Ala Asn Trp Lys Arg Lys Glu Lys Leu Pro Gln Val Thr Arg 275 280 Ser Trp His Asn Tyr Met Cys Asn Cys Val Ile Gln Asp Phe Gln Ala 290 295 Ser Val Leu Gln Val Ser Asp Ser Thr Tyr Asp Glu Gln Val Ala Ala 310 315 Gln Met Pro Thr Val His Tyr Glu Phe Pro Asn Gly Tyr Asn Cys Asp 325 330 Phe Gly Ala Glu Arg Leu Lys Ile Pro Glu Gly Leu Phe Asp Pro Ser 340 Asn Val Lys Gly Leu Ser Gly Asn Thr Met Leu Gly Val Ser His Val 355 360 Val Thr Thr Ser Val Gly Met Cys Asp Ile Asp Ile Arg Pro Gly Leu 375 Tyr Gly Ser Val Ile Val Ala Gly Gly Asn Thr Leu Ile Gln Ser Phe 385 Thr Asp Arg Leu Asn Arg Glu Leu Ser Gln Lys Thr Pro Pro Ser Met

410

405

Arg Leu Lys Leu Ile Ala Asn Asn Thr Thr Val Glu Arg Arg Phe Ser 420 Ser Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Gly Thr Phe Gln Gln 440 Met Trp Ile Ser Lys Gln Glu Tyr Glu Glu Gly Gly Lys Gln Cys Val 455 460 Glu Arg Lys Cys Pro 465 <210> 1157 <211> 94 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (19) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (49) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1157 Thr Ala Leu Cys Pro Arg Ile His Glu Val Pro Leu Leu Glu Pro Leu Val Cys Xaa Lys Ile Ala Gln Glu Arg Leu Thr Val Leu Leu Phe Leu 25 Glu Asp Cys Ile Ile Thr Ala Cys Gln Glu Gly Leu Ile Cys Thr Trp 35 Xaa Arg Pro Gly Lys Ala Phe Thr Asp Glu Glu Thr Glu Ala Gln Thr Gly Glu Gly Ser Trp Pro Arg Ser Pro Ser Lys Ser Val Val Glu Gly

Ile Ser Ser Gln Pro Gly Asn Ser Pro Ser Gly Thr Val Val 85 90

70

<211> 114 <212> PRT

<213> Homo sapiens

<400> 1158

Leu Ser Pro Gln Trp Thr His Leu Leu Val Lys Gly Ala Val Val Leu 5

Cys Gly Ser Gln Phe Thr Ser Phe Pro Lys Ile Gln Cys Asp His Pro 20 25

Val Asn Gly His Thr Ser Ser Glu Ile Asn Phe Gln Asn Leu Cys Ser 40

Ser Ser Tyr Pro Leu Arg Val Ile Met Ala Asn Lys Gln Lys Ala Leu

Val Gln Ala Pro Pro Asn Thr Leu Asn Leu Asn Leu Asn Met Leu Lys 70

Phe Glu Asn Lys Glu Thr Phe Phe Ile Ser Leu Ser Gly Leu Ser Leu 85 90

Val Leu Met Gly Leu Leu Met Ala Phe Gln Ser Val Ala Glu Ala Ile 100 105 110

Ile Phe

<210> 1159 <211> 155

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (43)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1159

Pro Trp Gly Ala Trp Arg Gln Gly Ala Arg Ala Ala Gln Ser Pro Phe 5 10 15

Ser Ile Pro Asn Ser Ser Ser Val Pro Tyr Gly Ser Gln Asp Ser Val

20 25 30 His Ser Ser Pro Glu Asp Gly Gly Gly Xaa Asp Arg Xaa Gly Gly Thr Gly Gly Pro Arg Leu Val Ile Gly Ser Leu Pro Ala His Leu Ser Pro His Met Phe Gly Gly Phe Lys Cys Pro Val Cys Ser Lys Phe Val 65 70 75 Ser Ser Asp Glu Met Asp Leu His Leu Val Met Cys Leu Thr Lys Pro 90 Arg Ile Thr Tyr Asn Glu Asp Val Leu Ser Lys Asp Ala Gly Glu Cys Ala Ile Cys Leu Glu Glu Leu Gln Gln Gly Asp Thr Ile Ala Arg Leu 120 Pro Cys Leu Cys Ile Tyr His Lys Gly Cys Ile Asp Glu Trp Phe Glu 130 135 Val Asn Arg Ser Cys Pro Glu His Pro Ser Asp 145 150 <210> 1160 <211> 337 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (38) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (46) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (155) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<221> SITE <222> (169)

<223	3> x	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<400> 1160															
			Cys	Lys 5	Pro	Asp	Gln	Pro	Leu 10		Ala	Glu	Gly	Arg 15	Leu
Leu	Ala	Pro	Ser 20	Gly	Asn	Pro	Ala	Pro 25	Ser	Pro	Gly	Ser	Glu 30	Arg	Leu
Ala	Gly	Asp 35	Asp	Thr	Xaa	Ser	Ala 40	Pro	Ala	Ala	Pro	Ser 45	Xaa	Gly	Cys
Gly	Lys 50	Arg	Arg	Glu	Ser	Asp 55	Ala	Gly	Ala	Gly	Gly 60	Glu	Arg	Ala	ser
Val 65	Arg	Thr	Gly	Ser	Gly 70	Arg	Arg	Gly	Gly	Ala 75	Asn	His	Gly	Arg	Gly 80
Gln	Arg	Ala	Asp	Pro 85	Ala	Glu	Pro	Pro	Ala 90	Ala	Gln	Arg	Arg	Arg 95	Ala
Leu	Pro	Tyr	Arg 100	Arg	His	Gly	Gly	Thr 105	Ala	Ser	Gly	Lys	Ser 110	Ser	Val
Cys	Ala	Lys 115	Ile	Val	Gln	Leu	Leu 120	Gly	Gln	Asn	Glu	Val 125	Asp	Tyr	Arg
Gln	Lys 130	Gln	Val	Val	Ile	Leu 135	Ser	Gln	Asp	Ser	Phe 140	Tyr	Arg	Val	Leu
Thr 145	Ser	Glu	Gln	Lys	Ala 150	Lys	Ala	Leu	Lys	Xaa 155	Gln	Phe	Asn	Phe	Asp 160
His	Pro	Asp	Ala	Phe 165	Asp	Asn	Glu	Xaa	Ile 170	Leu	Lys	Thr	Leu	Lys 175	Glu
Ile	Thr	Glu	Gly 180	Lys	Thr	Val	Gln	Ile 185	Pro	Val	Tyr	Asp	Phe 190	Val	Ser
His:	Ser	Arg 195	Lys	Glu	Glu	Thr	Val 200	Thr	Val	Tyr	Pro	Ala 205	Asp	Val	Val
Leu i	Phe 210	G1u	Gly	Ile	Leu	Ala 215	Phe	Tyr	Ser	Gln	G1u 220	Val	Arg	Asp	Leu
Phe 6	Gln	Met	Lys	Leu	Phe 230	Val	Asp	Thr	Asp	Ala 235	Asp	Thr	Arg	Leu	Ser 240
Arg i	Arg	Val	Leu	Arg 245	Asp	Ile	Ser	Glu	Arg 250	Gly	Arg	Asp	Leu	Glu 255	Gln

Ile Leu Ser Gln Tyr Ile Thr Phe Val Lys Pro Ala Phe Glu Glu Phe \$260\$

Cys Leu Pro Thr Lys Lys Tyr Ala Asp Val Ile Ile Pro Arg Gly Ala $275 \\ 280 \\ 285$

Asp Asn Leu Val Ala Ile Asn Leu Ile Val Gln His Ile Gln Asp Ile 290 295 300

Leu Asn Gly Gly Pro Ser Lys arg Gln Thr Asn Gly Cys Leu Asn Gly 305 \$310\$

Tyr Thr Pro Ser Arg Lys Arg Gln Ala Ser Glu Ser Ser Ser Arg Pro \$325\$ \$330\$ 335

His

<210> 1161

<211> 330

<212> PRT

<213> Homo sapiens

<400> 1161

Ala Arg Gly Met Phe Gly Leu Gly Asn Glu Phe Lys Pro Leu Asn Val

Gln Glu Arg Glu Ala Gln Phe Gly Thr Thr Ala Glu Ile Tyr Ala Tyr 20 25 30

Arg Glu Glu Gln Asp Phe Gly Ile Glu Ile Val Lys Val Lys Ala Ile 35 40 45

Ile Gln Gln Ala Lys Val Gln Ile Leu Pro Glu Cys Val Leu Pro Ser 65 70 75 80

Thr Met Ser Ala Val Gln Leu Glu Ser Leu Asn Lys Cys Gln Ile Phe 85 90 95

Pro Ser Lys Pro Val Ser Arg Glu Asp Gln Cys Ser Tyr Lys Trp Trp 100 105 110

Gln Lys Tyr Gln Lys Arg Lys Phe His Cys Ala Asn Leu Thr Ser Trp 115 120 125

Pro Arg Trp Leu Tyr Ser Leu Tyr Asp Ala Glu Thr Leu Met Asp Arg

130 135 140 Ile Lys Lys Gln Leu Arq Glu Trp Asp Glu Asn Leu Lys Asp Asp Ser 150 155 Leu Pro Ser Asn Pro Ile Asp Phe Ser Tyr Arg Val Ala Ala Cys Leu 170 Pro Ile Asp Asp Val Leu Arg Ile Gln Leu Leu Lys Ile Gly Ser Ala 180 185 190 Ile Gln Arg Leu Arg Cys Glu Leu Asp Ile Met Asn Lys Cys Thr Ser 195 200 Leu Cys Cys Lys Gln Cys Gln Glu Thr Glu Ile Thr Thr Lys Asn Glu 215 Ile Phe Ser Leu Ser Leu Cys Gly Pro Met Ala Ala Tyr Val Asn Pro 225 230 235 His Gly Tyr Val His Glu Thr Leu Thr Val Tyr Lys Ala Cys Asn Leu 245 250 Asn Leu Ile Gly Arg Pro Ser Thr Glu His Ser Trp Phe Pro Gly Tyr 260 265 Ala Trp Thr Val Ala Gln Cys Lys Ile Cys Ala Ser His Ile Gly Trp 280 Lys Phe Thr Ala Thr Lys Lys Asp Met Ser Pro Gln Lys Phe Trp Gly 290 295 Leu Thr Arg Ser Ala Leu Leu Pro Thr Ile Pro Asp Thr Glu Asp Glu 305 310 315 320 Ile Ser Pro Asp Lys Val Ile Leu Cys Leu 325 <210> 1162 <211> 165 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (144) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<221> SITE
<222> (148)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (153)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (165)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1162
Cys Arg Lys Thr Ala Gln Pro Thr Ala Ala Glu Met Lys Tyr Lys Asn
                 5
                                    1.0
                                                         15
Leu Met Ala Arg Ala Leu Tyr Asp Asn Val Pro Glu Cys Ala Glu Glu
Leu Ala Phe Arg Lys Gly Asp Ile Leu Thr Val Ile Glu Gln Asn Thr
                            40
Gly Gly Leu Glu Gly Trp Trp Leu Cys Ser Leu His Gly Arg Gln Gly
     50
                        55
Ile Val Pro Gly Asn Arg Val Lys Leu Leu Ile Gly Pro Met Gln Glu
 65
                    70
Thr Ala Ser Ser His Glu Gln Pro Ala Ser Gly Leu Met Gln Gln Thr
Phe Gly Gln Gln Lys Leu Tyr Gln Val Pro Asn Pro Thr Gly Leu Leu
                               105
Pro Pro Arg His Pro Phe Leu Pro Lys Val Pro Thr Leu Ser Leu Thr
        115
                           120
Gln Lys Ile Lys Gly Glu Ile Phe Thr Gln Arg Phe Pro Gln Leu Xaa
                       135
Ala Gln Arg Xaa Thr Pro Lys Gly Xaa Lys Gly Gly Val Leu Phe Arg
                  150
                                       155
Val Ala Pro Pro Xaa
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165

<211> 195 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (186) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1163 Phe Leu Asn Arg Glu Leu Ile Val Lys Ser Ser Met Ala Thr Gly Gly Gly Pro Phe Glu Asp Gly Met Asn Asp Gln Asp Leu Pro Asn Trp Ser Asn Glu Asn Val Asp Asp Arg Leu Asn Asn Met Asp Trp Gly Ala Gln 40 Gln Lys Lys Ala Asn Arg Ser Ser Glu Lys Asn Lys Lys Lys Phe Gly Val Glu Ser Asp Lys Arg Val Thr Asn Asp Ile Ser Pro Glu Ser Ser 70 Pro Gly Val Gly Arg Arg Thr Lys Thr Pro His Thr Phe Pro His Ser Arg Tyr Met Ser Gln Met Ser Val Pro Glu Gln Ala Glu Leu Glu 105 Lys Leu Lys Gln Arg Ile Asn Phe Ser Asp Leu Asp Gln Arg Ser Ile 115 120 Gly Ser Asp Ser Gln Gly Arg Ala Thr Ala Ala Asn Asn Lys Arg Gln 135 Leu Ser Glu Asn Arg Lys Pro Phe Asn Phe Leu Pro Met Gln Ile Asn

Thr Asn Lys Glu Gln Arg Cys Ile Leu Gln Val Pro Gln Thr Glu Glu Thr Val Gly Phe Ser Thr Val Leu Lys Xaa Cys Phe Ala Phe Trp Phe 185

170

165

Leu Ser Asn 195

<210> 1164

<211> 300 <212> PRT

<213> Homo sapiens

<400> 1164

Arg Arg Pro Ser Ala Arg Arg Glu Leu Gly Lys Gly Arg Gln Arg Arg 1 5 10 15

Arg Arg Gln Arg Gln Arg Gln Ser Pro Val Pro Arg Pro Ser Asp Arg \$20\$

Pro Ala Gly Leu Gly Leu Ala Lys Pro Ala Arg Arg Ala Leu Pro Thr \$35\$ \$40\$

Pro Glu Pro Gly Arg Lys Ser Ser Asp Ser Ser Leu Ala Ser Pro Gly 50 60

Ala Ala Leu Gln Thr Gly Pro Val Val Arg Gly Ser Gly Ala Asp Pro 65 70 75 80

Glu Ala Gly Phe Ala Gln Pro Pro Thr Arg Ala Gly Pro Leu Glu Gly 85 90 95

Ala Phe Asn Ser Arg Thr Arg Gln Ala Thr Met Thr Glu Asn Ser Thr 100 105 110

Ser Ala Pro Ala Ala Lys Pro Lys Arg Ala Lys Ala Ser Lys Lys Ser 115 120 125

Thr Asp His Pro Lys Tyr Ser Asp Met Ile Val Ala Ala Ile Gln Ala 130 \$135\$

Glu Lys Asn Arg Ala Gly Ser Ser Arg Gln Ser Ile Gln Lys Tyr Ile 145 \$150\$

Lys Ser His Tyr Lys Val Gly Glu Asn Ala Asp Ser Gln Ile Lys Leu 165 170 175

Ser Ile Lys Arg Leu Val Thr Thr Gly Val Leu Lys Gln Thr Lys Gly $180 \hspace{1cm} 185 \hspace{1cm} 190$

Val Gly Ala Ser Gly Ser Phe Arg Leu Ala Lys Ser Asp Glu Pro Lys \$195\$ \$200\$ 205

Lys Ser Val Ala Phe Lys Lys Thr Lys Lys Glu Ile Lys Lys Val Ala 210 215 220

Thr Pro Lys Lys Ala Ser Lys Pro Lys Lys Ala Ala Ser Lys Ala Pro 225 230 235 240

Thr Lys Lys Pro Lys Ala Thr Pro Val Lys Lys Ala Lys Lys Leu 245 250 255

Ala Ala Thr Pro Lys Lys Ala Lys Lys Pro Lys Thr Val Lys Ala Lys 260 265 270

Pro Val Lys Ala Ser Lys Pro Lys Lys Ala Lys Pro Val Lys Pro Lys 275 280 285

Ala Lys Ser Ser Ala Lys Arg Ala Gly Lys Lys Lys 290 295 300

<210> 1165

<211> 150

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (115)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1165

Ser Thr His Ala Ser Ala His Ala Ser Gly Lys Gln Glu Ile Val Asp 1 $$ 5 $$ 10 $$ 15

Pro Pro Ser Lys Met Glu Asp Gly Lys Pro Val Trp Ala Pro His Pro 20 25 30

Thr Asp Gly Phe Gln Met Gly Asn Ile Val Asp Ile Gly Pro Asp Ser 35 40 45

Leu Thr Ile Glu Pro Leu Asn Gln Lys Gly Lys Thr Phe Leu Ala Leu $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60 \hspace{1.5cm}$

Ile Asn Gln Val Phe Pro Ala Glu Glu Asp Ser Lys Lys Asp Val Glu 65 70 75 80

Asp Asn Cys Ser Leu Met Tyr Leu Asn Glu Ala Thr Leu Leu His Asn 85 90 95

Ile Lys Val Arg Tyr Ser Lys Asp Arg Ile Tyr Thr Tyr Val Ala Asn 100 105 110

Ile Leu Xaa Ala Val Asn Pro Tyr Phe Asp Ile Pro Lys Ile Tyr Leu 115 $$\rm 120$$ 125

Gln Ser Ile Lys Ser Tyr Gln Gly Lys Ser Leu Gly Thr Arg Pro Pro 130 \$135\$

```
Pro Gly Leu Cys Asn Cys
145
           150
<210> 1166
<211> 84
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1166
Ala Ile Trp Pro Leu Arg Gly Leu Leu Arg Tyr Arg Gln Phe Cys Gly
Ala Ala Ser Ala Ala Pro Arg Arg Ser Asn Met Leu Arg Ile Pro Leu
Arg Arg Ala Leu Val Xaa Leu Ser Asn Lys Ser Ser Lys Gly Cys Val
                            40
Arg Thr Thr Ala Thr Ala Ala Ser Asn Leu Ile Glu Val Phe Val Asp
Gly Gln Ser Val Met Val Glu Pro Gly Thr Thr Val Leu Gln Ala Cys
65
                   70
Glu Lvs Val Glv
<210> 1167
<211> 348
<212> PRT
<213> Homo sapiens
Leu Ile Phe Cys Gly Cys Trp Leu Phe Ala Ser Leu Thr Val Met Glu
                 5
                                   10
Ala Ala His Phe Phe Glu Gly Thr Glu Lys Leu Leu Glu Val Trp Phe
```

Ser Arg Gln Gln Pro Asp Ala Asn Gln Gly Ser Gly Asp Leu Arg Thr

Ile	Pro 50	Arg	Ser	Glu	Trp	Asp 55	Ile	Leu	Leu	Lys	Asp 60	Val	Gln	Cys	Ser
Ile 65	Ile	Ser	Val	Thr	Lys 70	Thr	Asp	Lys	Gln	Glu 75	Ala	Tyr	Val	Leu	Ser 80
Glu	Ser	Ser	Met	Phe 85	Val	Ser	Lys	Arg	Arg 90	Phe	Ile	Leu	Lys	Thr 95	Cys
Gly	Thr	Thr	Leu 100	Leu	Leu	Lys	Ala	Leu 105	Val	Pro	Leu	Leu	Lys 110	Leu	Ala
Arg	Asp	Tyr 115	Ser	Gly	Phe	Asp	Ser 120	Ile	Gln	Ser	Phe	Phe 125	Tyr	Ser	Arg
Lys	Asn 130	Phe	Met	Lys	Pro	Ser 135	His	Gln	Gly	Tyr	Pro 140	His	Arg	Asn	Phe
Gln 145	Glu	Glu	Ile	Glu	Phe 150	Leu	Asn	Ala	Ile	Phe 155	Pro	Asn	Gly	Ala	Ala 160
Tyr	Cys	Met	Gly	Arg 165	Met	Asn	Ser	Asp	Cys 170	Trp	Tyr	Leu	Tyr	Thr 175	Leu
Asp	Phe	Pro	Glu 180	Ser	Arg	Val	Ile	Ser 185	Gln	Pro	Asp	Gln	Thr 190	Leu	Glu
Ile	Leu	Met 195	Ser	Glu	Leu	Asp	Pro 200	Ala	Val	Met	Asp	Gln 205	Phe	Tyr	Met
Lys	Asp 210	Gly	Val	Thr	Ala	Lys 215	Asp	Val	Thr	Arg	Glu 220	Ser	Gly	Ile	Arg
Asp 225	Leu	Ile	Pro	Gly	Ser 230	Val	Ile	Asp	Ala	Thr 235	Met	Phe	Asn	Pro	Cys 240
Gly	Tyr	Ser	Met	Asn 245	Gly	Met	Lys	Ser	Asp 250	Gly	Thr	Tyr	Trp	Thr 255	Ile
His	Ile	Thr	Pro 260	Glu	Pro	Glu	Phe	Ser 265	Туг	Val	Ser	Phe	Glu 270	Thr	Asn
Leu	Ser	Gln 275	Thr	Ser	Tyr	Asp	Asp 280	Leu	Ile	Arg	Lys	Val 285	Val	Glu	Val
Phe	Lys 290	Pro	Gly	Lys	Phe	Val 295	Thr	Thr	Leu	Phe	Val 300	Asn	Gln	Ser	Ser
Lys 305	Cys	Arg	Thr	Val	Leu 310	Ala	Ser	Pro	Gln	Lys 315	Ile	Glu	Gly	Phe	Lys 320

Arg Leu Asp Cys Gln Ser Ala Met Phe Asn Asp Tyr Asn Phe Val Phe 325 330 335

Thr Ser Phe Ala Lys Lys Gln Gln Gln Gln Gln Ser

<210> 1168 <211> 90

<211> 90 <212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 116

Ser Ser Gln Arg Leu Gln Gly Arg Ala Arg Ala Val Leu Ser Pro Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Pro Xaa Ser Asn Val Gly Thr Gly Glu Lys Lys Val Thr Glu Ala
20 25 30

Trp Ile Ser Glu Asp Glu Asn Ser His Arg Thr Thr Ser Asp Arg Leu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Arg Leu Gly Glu Leu Leu Gly Asn Pro Glu Gly Gln Ser Leu Gly Ser 65 70 75 80

Ser Pro Ser Gln Asp Arg Gly Cys Asn Arg

<210> 1169

<211> 277

<212> PRT

<213> Homo sapiens

<400> 1169

Arg Ser Thr Arg Trp Arg Pro Lys Val Met Trp His Leu Leu Arg Arg

1 10 15

Tyr Met Ala Ser Arg Leu His Ser Leu Arg Met Gly Gly Tyr Leu Phe 20 25 30 Ser Gly Ser Gln Ala Pro Gln Leu Ser Pro Ala Leu Leu Arg Ala Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Gly Gln Lys Cys Pro Asn Leu Lys Arg Leu Cys Leu His Val Ala Asp
50 55 60

Leu Ser Met Val Pro Ile Thr Ser Leu Pro Ser Thr Leu Arg Thr Leu 65 70 75 80

Glu Leu His Ser Cys Glu Ile Ser Met Ala Trp Leu His Lys Gln Gln 85 90 95

Asp Pro Thr Val Leu Pro Leu Leu Glu Cys Ile Val Leu Asp Arg Val 100 105 110

Pro Ala Phe Arg Asp Glu His Leu Gln Gly Leu Thr Arg Phe Arg Ala 115 \$120\$

Leu Arg Ser Leu Val Leu Gly Gly Thr Tyr Arg Val Thr Glu Thr Gly 130 \$135\$

Leu Asp Ala Gly Leu Gln Glu Leu Ser Tyr Leu Gln Arg Leu Glu Val 145 150 155 160

Leu Gly Cys Thr Leu Ser Ala Asp Ser Thr Leu Leu Ala Ile Ser Arg 165 170 175

His Leu Pro Arg Cys Ala Gln Asp Pro Ala Asp Arg Glu Gly Leu Ser 180 185 190

Ala Pro Gly Leu Ala Val Leu Glu Gly Met Pro Ala Leu Glu Ser Leu 195 200 205

Cys Leu Gln Gly Pro Leu Val Thr Pro Glu Met Pro Ser Pro Thr Glu 210 215 220

Ile Leu Ser Ser Cys Leu Thr Met Pro Lys Leu Arg Val Leu Glu Leu 225 230 235 240

Gln Gly Leu Gly Trp Glu Gly Gln Glu Ala Glu Lys Ile Leu Cys Lys 245 250 255

Gly Leu Pro His Cys Met Val Ile Val Arg Ala Cys Pro Lys Glu Ser \$260\$ \$265\$ \$270\$

Met Asp Trp Trp Met 275 <210> 1170 <211> 489 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (349) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (351) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (356) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (362) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1170 Thr Arg Val Phe Lys Glu Leu Glu Asn Thr Gly Lys Leu Ile Cys Ser 10 Pro Thr His Ile Asp Arg Val Arg Leu Phe Leu Met Gln Leu Arg Lys 20 25 Met Gln Thr Val Lys Lys Glu Gln Ala Ser Leu Asp Ala Ser Ser Asn 40 Val Asp Lys Met Met Val Leu Asn Ser Ala Leu Thr Glu Val Ser Glu Asp Ser Thr Thr Gly Glu Glu Leu Leu Ser Glu Gly Ser Val Gly 65 70 75 Lys Asn Lys Ser Ser Ala Cys Arg Arg Lys Arg Glu Phe Ile Pro Asp Glu Lys Lys Asp Ala Met Tyr Trp Glu Lys Arg Arg Lys Asn Asn Glu 105 Ala Ala Lys Arg Ser Arg Glu Lys Arg Arg Leu Asn Asp Leu Val Leu 115 120 125

Glu Asn Lys Leu Ile Ala Leu Gly Glu Glu Asn Ala Thr Leu Lys Ala

Glu Leu Leu Ser Leu Lys Leu Lys Phe Gly Leu Ile Ser Ser Thr Ala Tyr Ala Gln Glu Ile Gln Lys Leu Ser Asn Ser Thr Ala Val Tyr Phe Gln Asp Tyr Gln Thr Ser Lys Ser Asn Val Ser Ser Phe Val Asp Glu His Glu Pro Ser Met Val Ser Ser Cys Ile Ser Val Ile Lys His Ser Pro Gln Ser Ser Leu Ser Asp Val Ser Glu Val Ser Ser Val Glu His Thr Gln Glu Ser Ser Val Gln Gly Ser Cys Arg Ser Pro Glu Asn Lys Phe Gln Ile Ile Lys Gln Glu Pro Met Glu Leu Glu Ser Tyr Thr Arg Glu Pro Arg Asp Asp Arg Gly Ser Tyr Thr Ala Ser Ile Tyr Gln Asn Tyr Met Gly Asn Ser Phe Ser Gly Tyr Ser His Ser Pro Pro Leu Leu Gln Val Asn Arg Ser Ser Ser Asn Ser Pro Arg Thr Ser Glu Thr Asp Asp Gly Val Val Gly Lys Ser Ser Asp Gly Glu Asp Glu Gln Gln Val Pro Lys Gly Pro Ile His Ser Pro Val Glu Leu Lys His Val His Ala Thr Val Val Lys Val Pro Glu Val Asn Ser Ser Xaa Leu Xaa His Lys Leu Arg Xaa Lys Ala Lys Ala Met Xaa Ile Lys Val Glu Ala Phe Asp Asn Glu Phe Glu Ala Thr Gln Lys Leu Ser Ser Pro Ile Asp Met Thr Ser Lys Arg His Phe Glu Leu Glu Lys His Ser Ala Pro Ser Met

Val His Ser Ser Leu Thr Pro Phe Ser Val Gln Val Thr Asn Ile Gln

405 410 415

Asp Trp Ser Leu Lys Ser Glu His Trp His Gln Lys Glu Leu Ser Gly
420 425 430

Lys Thr Gln Asn Ser Phe Lys Thr Gly Val Val Glu Met Lys Asp Ser \$435\$

Gly Tyr Lys Val Ser Asp Pro Glu Asn Leu Tyr Leu Lys Gln Gly Ile 450 \$450\$

Ala Asn Leu Ser Ala Glu Val Val Ser Leu Lys Arg Leu Ile Ala Thr 465 \$470\$

Gln Pro Ile Ser Ala Ser Asp Ser Gly 485

<210> 1171

<211> 49

<212> PRT

<213> Homo sapiens

<400> 1171

Gly Gly Val Thr Lys Arg Gln Ile Leu His Met Ile Pro Leu Val Ile

Pro Arg Val Lys Phe Met Glu Thr Glu Ser Arg Lys Val Val Thr Ser

Gly Trp Glu Gly Glu Asn Val Glu Phe Asn Gly Tyr Arg Ile Leu Val 35 40 45

Leu

<210> 1172

<211> 442

<212> PRT

<213> Homo sapiens

<400> 1172

Ala Glu Ala Arg Ala Lys Ala Glu Ala Ala Gly Leu Arg Glu Ala Ala 1 5 10 15

Ala Arg Arg Arg Ser Leu Ser Pro Ala Thr Met Ser Thr Lys Gln Ile \$20\$ \$25\$ \$30

Thr	Cys	Arg 35	Tyr	Phe	Met	His	Gly 40	Val	Cys	Arg	Glu	Gly 45	Ser	Gln	Cys
Leu	Phe 50	Ser	His	Asp	Leu	Ala 55	Asn	Ser	Lys	Pro	Ser 60	Thr	Ile	Cys	Lys
Tyr 65	Tyr	Gln	Lys	Gly	Tyr 70	Cys	Ala	Tyr	Gly	Thr 75	Arg	Cys	Arg	Tyr	Asp 80
His	Thr	Arg	Pro	Ser 85	Ala	Ala	Ala	Gly	Gly 90	Ala	Val	Gly	Thr	Met 95	Ala
His	Ser	Val	Pro 100	Ser	Pro	Ala	Phe	His 105	Ser	Pro	His	Pro	Pro 110	Ser	Glu
Val	Thr	Ala 115	Ser	Ile	Val	Lys	Thr 120	Asn	Ser	His	Glu	Pro 125	Gly	Lys	Arg
Glu	Lys 130	Arg	Thr	Leu	Val	Leu 135	Arg	Asp	Arg	Asn	Leu 140	Ser	Gly	Met	Ala
145					Pro 150					155					160
Asp	Pro	Gln	Pro	Ser 165	Pro	Glu	Met	Lys	Pro 170	His	Ser	Tyr	Leu	Asp 175	Ala
Ile	Arg	Ser	Gly 180	Leu	Asp	Asp	Val	Glu 185	Ala	Ser	Ser	Ser	Tyr 190	Ser	Asn
		195		-	Pro	-	200			_		205			
	210	-		-	Leu	215	·			•	220		-	-	
Gln 225	Val	Leu	His	Pro	Phe 230	Asp	Pro	Glu	Gln	Arg 235	Lys	Ala	His	Glu	Lys 240
Ile	Cys	Met	Leu	Thr 245	Phe	Glu	His	Glu	Met 250	Glu	Lys	Ala	Phe	Ala 255	Phe
Gln	Ala	Ser	Gln 260	Asp	Lys	Val	Cys	Ser 265	Ile	Cys	Met	Glu	Val 270	Ile	Leu
Glu	Lys	Ala 275	Ser	Ala	Ser	Glu	Arg 280	Arg	Phe	Gly	Ile	Leu 285	Ser	Asn	Cys
	His 290	Thr	Tyr	Cys	Leu	Ser 295	Cys	Ile	Arg	Gln	Trp 300	Arg	Cys	Ala	Lys

Gln Phe Glu Asn Pro Ile Ile Lys Ser Cys Pro Glu Cys Arg Val Ile Ser Glu Phe Val Ile Pro Ser Val Tyr Trp Val Glu Asp Gln Asn Lys 325 330 Lys Asn Glu Leu Ile Glu Ala Phe Lys Gln Gly Met Gly Lys Lys Ala 340 345 350 Cys Lys Tyr Phe Glu Gln Gly Lys Gly Thr Cys Pro Phe Gly Ser Lys 360 Cys Leu Tyr Arg His Ala Tyr Pro Asp Gly Arg Leu Ala Glu Pro Glu Lys Pro Arg Lys Gln Leu Ser Ser Gln Gly Thr Val Arg Phe Phe Asn 385 390 395 400 Ser Val Arg Leu Trp Asp Phe Ile Glu Asn Arg Glu Ser Arg His Val 405 410

Pro Asn Asn Glu Asp Val Asp Met Thr Glu Leu Gly Asp Leu Phe Met 420 425 430

His Leu Ser Gly Val Glu Ser Ser Glu Pro

<210> 1173

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Leu Glu Phe Trp Leu Leu Cys Leu Xaa Ser Arg His Leu Leu Tyr Gln

1 5 10 15 Leu Leu Trp Asn Met Phe Ser Lys Glu val Glu Leu Ala Asp Ser Met 20 25 30 Gln Thr Leu Phe Arg Gly Asn Ser Leu Ala Ser Lys Ile Met Thr Phe

35 40 45

Cvs Phe Lvs Val Tvr Glv Ala Thr Tvr Leu Gln Lvs Leu Leu Xaa Prr

Cys Phe Lys Val Tyr Gly Ala Thr Tyr Leu Gln Lys Leu Leu Xaa Pro 50 60

Leu Leu Arg Ile Val Ile Thr Ser Ser Asp Trp Gln His Val Ser Phe 65 70 75 80

Gln Arg Asn Leu Leu Gln Met Thr Glu Lys Phe Phe His Ala Ile Ile 100 \$105\$

Ser Ser Ser Ser Glu Phe Pro Pro Gln Leu Arg Ser Val Cys His Cys 115 120 125

Leu Tyr Gln Ala Thr Tyr His Ser Leu Leu Asn Lys Ala Thr 130 135 140

<210> 1174 <211> 385

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<222> (313)

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<400> 1174

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Thr Glu Gly Ala Thr Cys Ala Gly Pro Gly Glu Ser Trp Ser Pro Ser 20 25 30

Pro Asn Ser Met Leu Arg Val Leu Leu Ser Ala Gln Thr Ser Pro Ala

35 40 45 Arg Leu Ser Gly Leu Leu Leu Ile Pro Pro Val Gln Pro Cys Cys Leu 5.5 Gly Pro Ser Lys Trp Gly Asp Arg Pro Val Gly Gly Pro Ser Ala Gly Pro Val Gln Gly Leu Gln Arg Leu Leu Glu Gln Ala Lys Ser Pro Gly Glu Leu Leu Arg Trp Leu Gly Gln Asn Pro Ser Lys Val Arg Ala 105 His His Tyr Ser Val Ala Leu Arg Arg Leu Gly Gln Leu Leu Gly Ser 120 Arg Pro Arg Pro Pro Pro Val Glu Gln Val Thr Leu Gln Asp Leu Ser 130 135 Gln Leu Ile Ile Arg Asn Cys Pro Ser Phe Asp Ile His Thr Ile His 150 Val Cys Leu His Leu Ala Val Leu Leu Gly Phe Pro Ser Asp Gly Pro 170 Leu Val Cys Ala Leu Glu Glu Glu Arg Arg Leu Ala Xaa Pro Pro Lys 185 Pro Pro Pro Pro Leu Gln Pro Leu Leu Arg Gly Gly Gln Gly Leu Glu 195 Ala Ala Leu Ser Cys Pro Arg Phe Leu Arg Tyr Pro Arg Gln His Leu Ile Ser Ser Leu Ala Glu Ala Arg Pro Glu Glu Leu Thr Pro His Val 235 230 Met Val Leu Leu Ala Gln His Leu Ala Arg His Arg Leu Arg Glu Pro 245 250 255 Gln Leu Leu Glu Ala Ile Ala His Phe Leu Val Val Gln Glu Thr Gln Leu Ser Ser Lys Val Val Gln Lys Leu Val Leu Pro Phe Gly Arg Leu 280 Asn Tyr Leu Pro Leu Glu Gln Gln Phe Met Pro Cys Leu Glu Arg Ile 290 295 300

Leu Ala Arq Glu Ala Gly Val Ala Xaa Leu Ala Thr Val Asn Ile Leu

305 310 315 320 Met Ser Leu Cys Gln Leu Arg Cys Leu Pro Phe Arg Ala Leu His Phe 330 Val Phe Ser Pro Gly Phe Ile Asn Tyr Ile Ser Gly Thr Gln Pro Gly 345 Trp Leu Ala Gly Pro Leu Arg Ala Gly Glu Ala Gly Glu Gln Gly Gly Leu Gln Pro Arg Ala Pro Val Pro Ala Ser Pro Gln Ala Pro Leu Met 375 Leu 385 <210> 1175 <211> 114 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (50) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1175 His Glu Gln Asp Pro Lys Trp Gln Arg Cys Arg Leu Ser Trp Glu Ser Glu Pro Leu Trp Leu Phe Gly Arg Leu Met Val Thr Leu Lys Tyr Cys 20 25 Leu Pro Leu Val Ser Arg Pro Ser Ser Ile Arg Trp Glu Arg Arg Pro Gln Xaa Met Cys Leu Ser Asp His Gly Ala Ser Cys Pro Ala Leu Gly Lys Thr Glu Thr Lys Ser Ser Gln Leu Ala Leu Gly Glu Gly Leu Phe Pro Leu Pro Leu Ala His Phe Gln Glu Phe Asp Ser Glu Ser Arg Ala Ala Val Pro Gly Arg Val Cys Thr His Ile Cys Val Gly Arg Lys Lys

105

100

Arg Thr

<210> 1176

<210> 1176

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (182)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1176

Gln Arg Leu Glu Ser Gly Asp Cys Ile Gly Val Leu Asp Cys Glu Trp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys \$20\$

Ala Pro Gln Lys Glu Cys Phe Gly Gly Ile Val Gly Ala Lys Ser Pro 35 40 45

Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Asn 50 60

Met Ile Lys Ser Ala Pro Val Gly Pro Val Ala Gly Gly Ile Met Gly 65 70 75 80

Cys Ile Met Val Leu Val Leu Ala Val Tyr Ala Tyr Arg His Gln Ile 85 90 95

His Arg Arg Ser His Gln His Met Ser Pro Leu Ala Ala Gln Glu Met $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Ser Val Arg Met Ser Asn Leu Glu Asn Asp Arg Asp Glu Arg Asp Asp 115 120 125

Asp Ser His Glu Asp Arg Gly Ile Ile Ser Asn Thr Arg Phe Ile Ala 130 135 140

Ala Val Ile Glu Arg His Ala His Ser Pro Glu Arg Arg Arg Tyr 145 \$150\$

Trp Gly Arg Ser Gly Thr Glu Ser Asp His Gly Tyr Ser Thr Met Ser 165 170 175

Pro Gln Glu Asp Ser Xaa Lys Ser Ser Met Gln Gln 180 185 972

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<210> 1177
<211> 95
<212> PRT
<213> Homo sapiens
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His Ile Ala Lys Val Ser Cys Thr Leu Leu Gln Gly Asn Val Ser Phe
Met Ala Leu Lys His Leu Gly Lys Lys Lys Met Phe Lys Arg Ile Asn
Arg Ala Val Val Cys Ile Arg Met Cys Val Ile Cys Val Phe Tyr Lys
                            40
Leu Ser Ile Gly Gly Phe Arg Val Leu Lys Cys Gln His Ile Pro Ser
                         55
Pro Phe Val Ser Gln Ala Asn Met Arg Glu Asn Arg Lys Val Leu Ala
Val Gly Ile Gly Ser Ser Gly Gly Gln Met Ser Leu Pro Asp Pro
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<212> PRT
<213> Homo sapiens
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                  5
Leu Thr Thr Pro Cys Tyr Thr Pro Tyr Tyr Val Ala Pro Glu Val Leu
            20
Gly Pro Glu Lys Tyr Asp Lys Ser Cys Asp Met Trp Ser Leu Gly Val
                             40
Ile Met Tyr Ile Leu Leu Cys Gly Tyr Pro Pro Phe Tyr Ser Asn His
```

Gly Leu Ala Ile Ser Pro Gly Met Lys Thr Arg Ile Arg Met Gly Gln 65 75

Tyr Glu Phe Pro Asn Pro Glu Trp Ser Glu Val Ser Glu Glu Val Lys 85 90

Met Leu Ile Arg Asn Leu Leu Lys Thr Glu Pro Thr Gln Arg Met Thr 105

Ile Thr Glu Phe Met Asn His Pro Trp Ile Met Gln Ser Thr Lys Val 120

Pro Gln Thr Pro Leu His Thr Ser Arg Val Leu Lys Glu Asp Lys Glu 130 135 140

Arg Trp Glu Asp Val Lys Glu Glu Met Thr Ser Ala Leu Ala Thr Met 145 150 155

Arg Val Asp Tyr Glu Gln Ile Lys Ile Lys Ile Glu Asp Ala Ser 170

Asn Pro Leu Leu Lys Arg Arg Lys Lys Ala Arg Ala Leu Glu Ala 180 185 190

Ala Ala Leu Ala His 195

<210> 1179 <211> 249

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<221> SITE <222> (109) <223> Xaa equals any of the naturally occurring L-amino acids	;											
<220> <221> SITE <222> (224) <223> Xaa equals any of the naturally occurring L-amino acids												
<220> <221> SITE <222> (226) <223> (28a equals any of the naturally occurring L-amino acids												
the square any or the hatterly bootstring a united total												
<400> 1179 His Glu Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Glu C l 5 10 15	ys											
Arg Lys Thr Phe Ser Gln Met Thr His Leu Thr Gln His Gln Thr T $$20$$ $$25$$ $$30$$	hr											
His Thr Arg Glu Lys Phe His Glu Cys Ser Glu Cys Gly Lys Ala P 35 40 45	he											
Ser Arg Val Ser Ala Leu Ile Asp His Gln Arg Ile His Ser Gly G $50 \ \ 55 \ \ 60$	lu											
Xaa Pro Tyr Glu Cys Lys Xaa Cys Gly Arg Ala Phe Thr Gln Ser A 65 70 75	1a 80											
Gln Leu Ile Xaa His Gln Lys Thr His Ser Gly Glu Lys Pro Tyr G 85 90 95	lu											
Cys Ser Lys Cys Lys Lys Ser Phe Val His Leu Ser Xaa Leu Ile G 100 105 110	lu											
His Trp Arg Ile His Thr Gly Glu Lys Pro Tyr Gln Cys Lys Asp C 115 120 125	ys											
Lys Lys Thr Phe Cys arg Val Met Gln Phe Thr Leu His Arg Arg II 130 $$135\ $	le											
His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ser Pl 145 150 155	he 60											
Ser Ala His Ser Ser Leu Val Thr His Lys Arg Thr His Ser Gly G 165 170 175	lu											
Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Ser Ala His Se 180 185 190	er											

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Ser Leu Val Thr His Lys Arg Thr His Ser Gly Glu Lys Pro Tyr Thr
                              200
  Cys His Ala Cys Gly Lys Ala Phe Asn Thr Ser Ser Thr Leu Cys Xaa
                         215
  His Xaa Arg Ile His Thr Gly Glu Lys Pro Phe Gln Cys Ser Gln Cys
  225
                                         235
                      230
  Gly Lys Ser Leu Val Phe Ser Cys Arg
                 245
 <210> 1180
<211> 377
 <212> PRT
 <213> Homo sapiens
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 Gln Gly Ala Ser Asn Leu Thr Leu Ser Glu Thr Gln Asn Gly Asp Val
              20
 Ser Glu Glu Thr Met Gly Ser Arg Lys Val Lys Lys Ser Lys Gln Lys
                              40
 Pro Met Asn Val Gly Leu Ser Glu Thr Gln Asn Gly Gly Met Ser Gln
                          55
                                              60
```

G1u 65	Ala	Val	Gly	Asn	Ile 70	Lys	Val	Thr	Lys	Ser 75	Pro	G1n	Lys	Ser	Thr 80
Val	Leu	Ser	Asn	Gly 85	Glu	Ala	Ala	Met	Gln 90	Ser	Ser	Asn	Ser	Glu 95	Ser
Lys	Lys	Lys	Lys 100	Lys	Lys	Lys	Arg	Lys 105	Met	Val	Asn	Asp	Ala 110	Glu	Pro
Asp	Thr	Lys 115	Lys	Ala	Lys	Thr	Glu 120	Asn	Lys	Gly	Lys	Ser 125	Glu	Glu	Glu
Ser	Ala 130	Glu	Thr	Thr	Lys	Glu 135	Thr	Glu	Asn	Asn	Val 140	Glu	Lys	Pro	Asp
Asn 145	Asp	Glu	Asp	Glu	Ser 150	Glu	Val	Pro	Ser	Leu 155	Pro	Leu	Gly	Leu	Thr 160
Gly	Ala	Phe	Glu	Asp 165	Thr	Ser	Phe	Ala	Ser 170	Leu	Суѕ	Asn	Leu	Val 175	Asn
Glu	Asn	Thr	Leu 180	Lys	Ala	Ile	Lys	Glu 185	Met	Gly	Phe	Thr	Asn 190	Met	Thr
Glu	Ile	Gln 195	His	Lys	Ser	Ile	Arg 200	Pro	Leu	Leu	Glu	Gly 205	Arg	Asp	Leu
Leu	Ala 210	Ala	Ala	Lys	Thr	Gly 215	Ser	Gly	Lys	Thr	Leu 220	Ala	Phe	Leu	Ile
Pro 225	Ala	Val	Glu	Leu	11e 230	Val	Lys	Leu	Arg	Phe 235	Met	Pro	Arg	Asn	Gly 240
Thr	Gly	Val	Leu	Ile 245	Leu	Ser	Pro	Thr	Arg 250	Glu	Leu	Ala	Met	Gln 255	Thr
Phe	Gly	Val	Leu 260	Lys	Glu	Leu	Met	Thr 265	His	His	Val	His	Thr 270	Tyr	Gly
Leu	Ile	Met 275	Gly	Gly	Ser	Asn	Arg 280	Ser	Ala	Glu	Ala	Gln 285	Lys	Leu	Gly
Asn	Gly 290	Ile	Asn	Ile	Ile	Val 295	Ala	Thr	Pro	Gly	Arg 300	Leu	Leu	Asp	His
Met 305	Gln	Asn	Thr	Pro	Gly 310	Phe	Met	Tyr	Lys	Asn 315	Leu	Gln	Cys	Leu	Val 320
Ile	Asp	Glu	Xaa	Asp 325	Arg	Ile	Leu	Asp	Val 330	Gly	Phe	Glu	Glu	Glu 335	Leu

```
Lys Gln Ile Ile Lys Leu Leu Pro Thr Arg Arg Gln Thr Met Leu Phe
             340
                                345
 Ser Ala Thr Gln Thr Arg Lys Xaa Glu Xaa Leu Ala Arg Ile Ser Leu
         355
                            360
                                                365
 Lys Lys Glu Pro Leu Val Cvs Trp Arg
    370
                         375
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<40	0> 1	181													
Ser 1		Leu	Leu	Gln 5		Thr	Tyr	Pro	Lys 10		Arg	Met	Pro	Asp 15	Arg
Arg	His	Ser	Lys 20	Ser	Ala	Gln	Ile	Ile 25	Хаа	Xaa	Pro	Val	Pro 30	Tyr	Gln
хаа	Xaa	Ser 35	His	Thr	Ser	Tyr	Leu 40	Tyr	Thr	Gln	Tyr	Ala 45	Pro	Val	Pro
Phe	Gly 50	Ile	Pro	Xaa	Pro	Met 55	Pro	Xaa	Pro	Met	Leu 60	Ile	Pro	Ser	Ser
Met 65	Asp	Ser	Glu	Asp	Lys 70	Val	Thr	Glu	Ser	Ile 75	Glu	Asp	Ile	Lys	Glu 80
Lys	Leu	Pro	Thr	His 85	Pro	Phe	Glu	Ala	Asp 90	Leu	Leu	Glu	Met	Ala 95	Glu
Met	Ile	Ala	Glu 100	Asp	Glu	Glu	Lys	Lys 105	Thr	Leu	Ser	Gln	Gly 110	Glu	Ser
Gln	Thr	Ser 115	Glu	His	Glu	Leu	Phe 120	Leu	Asp	Thr	Lys	11e 125	Phe	Gl u	Lys
Xaa	Gln 130	Gly	Ser	Thr	Tyr	Ser 135	Gly	Asp	Leu	Glu	Ser 140	Glu	Ala	Val	Ser
Thr 145	Pro	His	Ser	Trp	Glu 150	Glu	Glu	Leu	Asn	His 155	Tyr	Ala	Leu	Lys	Ser 160
Asn	Ala	Val	Gln	Glu 165	Ala	Asp	Ser	Glu	Leu 170	Lys	Gln	Phe	Ser	Lys 175	Gly
Glu	Thr	Glu	Arg 180	Thr	Trp	Lys	Gln	Ile 185	Phe	His	Gln	Thr	Pro 190	Leu	Thr
His	Leu	Ile 195	Lys	Asp	Gly	Asn	Pro 200	Gly	Thr	Phe	Pro	Asn 205	Arg	Arg	Arg
His	Arg 210	Asp	Gly	Phe	Pro	Gln 215	Pro	Arg	Arg	Arg	Gly 220	Arg	Lys	Lys	Ser
Ile 225	Val	Ala	Val	Glu	Pro 230	Arg	Ser	Leu	Ile	G1n 235	Gly	Ala	Phe	Gln	Gly 240

Cys Ser Val Ser Gly Met Thr Xaa Lys Tyr Met Tyr Gly Val Asn Ala 245 250 255

Trp Lys Asn Trp Val Gln Trp Lys Asn Ala Lys Glu Glu Gln Gly Asp
260 265 270

Leu Lys Cys Gly Gly Val Glu Gln Ala Ser Ser Ser Pro Arg Ser Asp 275 280 285

Pro Leu Gly Ser Thr Gln Asp His Ala Leu Ser Gln Glu Ser Ser Glu 290 295 300

Pro Gly Cys Arg Val Arg Ser Ile Lys Leu Lys Glu Asp Ile Leu Ser 305 310 315 320

Cys Thr Phe Ala Glu Leu Ser Leu Gly Leu Cys Gln Phe Ile Gln Glu 325 330 335

Val Arg Arg Pro Asn Gly Glu Lys Tyr Asp Pro Asp Ser Ile Leu Tyr 340 345 350

Leu Cys Leu Gly Ile Gln Gln Tyr Leu Phe Glu Asn Gly Arg Ile Asp \$355\$

Asm Ile Phe Thr Glu Pro Tyr Ser Arg Phe Met Ile Glu Leu Thr Lys 370 375 380

Leu Leu Lys Ile Trp Glu Pro Thr Ile Leu Pro Asn Gly Tyr Met Phe 385 390 395 400

Ser Arg Ile Glu Glu His Leu Trp Glu Cys Lys Gln Leu Gly Ala $405 \hspace{1.5cm} 410 \hspace{1.5cm} 415 \hspace{1.5cm}$

Tyr Ser Pro Ile Ala Phe 420

<210> 1182

<211> 26

<212> PRT

<213> Homo sapiens

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<220>

<221> SITE

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Lys Thr Gly Ala Cys Pro Glu Asp Xaa Lys Tyr Cys Pro Gln Ser Ser
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                                     10
                                                         15
Arg Tyr Lys Thr Gly Leu Glu Pro Xaa Gly
             20
<210> 1183
<211> 17
<212> PRT
<213> Homo sapiens
<400> 1183
Gly Gln Glu Ile Glu Thr Val Leu Ala Asn Met Val Lys Pro Arg Leu
                                    1.0
                                                         15
Tyr
<210> 1184
<211> 165
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<213> Homo sapiens
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Cys Asp Ser Trp Asn Ala Val Met Ser Thr Leu Cys Pro Pro Pro Ser
                                     10
Pro Ala Val Ala Lys Thr Glu Ile Ala Leu Ser Gly Lys Ser Pro Leu
                                25
Leu Ala Ala Thr Phe Ala Tyr Trp Asp Asn Ile Leu Gly Pro Arg Val
        35
                            40
                                                 45
Arg His Ile Trp Ala Pro Lys Thr Glu Gln Val Leu Leu Ser Asp Gly
                        55
Glu Ile Thr Phe Leu Ala Asn His Thr Leu Asn Gly Glu Ile Leu Arg
                    70
                                        75
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Asn Ala Glu Ser Gly Ala Ile Asp Val Lys Phe Phe Val Leu Ser Glu
                 85
                                    9.0
Lys Gly Val Ile Ile Val Ser Leu Ile Phe Asp Gly Asn Trp Asn Gly
            100
                                105
Asp Arg Ser Thr Tyr Gly Leu Ser Ile Ile Leu Pro Gln Thr Glu Leu
                            120
Ser Phe Tyr Leu Pro Leu His Arg Val Cys Val Asp Arg Leu Thr His
Ile Ile Arg Lys Gly Arg Ile Trp Met His Lys Glu Arg Xaa Glu Met
145
                    150
                                        155
Ser Arg Arg Leu Ser
                165
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<221> SITE
<222> (91)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (96)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1185
Gly Thr Ala Phe Thr Arg Gln Cys Ser Gln Gly Pro Trp Tyr Arg Ala
Arg Ser Arg Val Pro Gln Val Val Arg Leu Pro Gly Pro His Leu Glu
             20
                                 25
                                                     30
Pro Ser Leu Cys Ser Phe Glu Ser Arg Cys Cys Pro Thr Pro Ile Pro
```

Asn Gln Pro Pro Pro Pro Ala Ser Leu Pro Ser Val Pro Phe Ile Leu $50 \hspace{1cm} 55 \hspace{1cm} 60 \hspace{1cm}$

Pro Gly Val Pro Ser Ala Cys His Gly Thr Ala Cys Tyr Leu Xaa Gln 65 70 75 80

Leu Gln Met Pro Ala Leu Asn Leu Pro Trp Xaa Pro Phe Leu Tyr Xaa 85 90 95

Val Asn Ser Leu Asn Ser A1a Leu Pro Leu Pro A1a Leu Lys $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

<210> 1186

<211> 352

<212> PRT

<213> Homo sapiens

<400> 1186

Cys Arg Ser Pro Glu Ala Ser Val Leu Phe Pro Glu Val Ser Gly Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gly Gln Pro Pro Ser Ser Ser Leu Arg Met Ala Ser Ser Ser Gly Ser 20 25 30

Lys Ala Glu Phe Ile Val Gly Gly Lys Tyr Lys Leu Val Arg Lys Ile \$35\$ \$40\$ \$45\$

Gly Ser Gly Ser Phe Gly Asp Ile Tyr Leu Ala Ile Asn Ile Thr Asn $50 \\ 55 \\ 60$

Gly Glu Glu Val Ala Val Lys Leu Glu Ser Gln Lys Ala Arg His Pro 65 70 75 80

Gln Leu Leu Tyr Glu Ser Lys Leu Tyr Lys Ile Leu Gln Gly Gly Val $85 \hspace{1cm} 90 \hspace{1cm} 95$

Gly Ile Pro His Ile Arg Trp Tyr Gly Glu Glu Lys Asp Tyr Asn Val $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

Leu Val Met Asp Leu Gly Pro Ser Leu Glu Asp Leu Phe Asn Phe 115 120 125

Cys Ser Arg Arg Phe Thr Met Lys Thr Val Leu Met Leu Ala Asp Gln 130 135 140

Met Ile Ser Arg Ile Glu Tyr Val His Thr Lys Asn Phe Ile His Arg 145 150 155 160

Asp Ile Lys Pro Asp Asn Phe Leu Met Gly Ile Gly Arg His Cys Asn

WO 00/55174 PCT/US00/05988 983

> 165 170 175

Lys Leu Phe Leu Ile Asp Phe Gly Leu Ala Lys Lys Tyr Arg Asp Asn 180 185

Arg Thr Arg Gln His Ile Pro Tyr Arg Glu Asp Lys Asn Leu Thr Gly 200

Thr Ala Arg Tyr Ala Ser Ile Asn Ala His Leu Gly Ile Glu Gln Ser 210 215

Arg Arg Asp Asp Met Glu Ser Leu Gly Tyr Val Leu Met Tyr Phe Asn 230 235

Arg Thr Ser Leu Pro Trp Gln Gly Leu Lys Ala Ala Thr Lys Lys Gln 245 250

Lys Tyr Glu Lys Ile Ser Glu Lys Lys Met Ser Thr Pro Val Glu Val 265

Leu Cys Lys Gly Phe Pro Ala Glu Phe Ala Met Tyr Leu Asn Tyr Cys 275 280

Arg Gly Leu Arg Phe Glu Glu Ala Pro Asp Tyr Met Tyr Leu Arg Gln 295

Leu Phe Arg Ile Leu Phe Arg Thr Leu Asn His Gln Tyr Asp Tyr Thr 310 315

Phe Asp Trp Asp Asn Val Lys Ala Glu Ser Ser Thr Ala Gly Ser Leu 325 330 335

Phe Gln Trp Ala Gly Ser Ala Gly Pro Asn Pro His Arg Gln Ala Asn 340 345

<210> 1187

<211> 482

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (259)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (450)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (459)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (475)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1187
Ala Gly Leu Val Ala Ala Gly Ala Val Arg Xaa Leu Tyr Pro Ala Ser
Arg Ala Gly Glu Arg Thr Arg Val Pro Gly Ser Pro Ala Pro Xaa Ser
Leu Pro Leu His Ser Pro Gly Ala Cys Gly Thr Glu Val Asp Met Asp
         35
                             40
                                                 45
Pro Gln Arg Ser Pro Leu Leu Glu Val Lys Gly Asn Ile Glu Leu Lys
    50
Arg Pro Leu Ile Lys Ala Pro Ser Gln Leu Pro Leu Ser Gly Ser Arg
                    70
                                        75
Leu Lys Arg Arg Pro Asp Gln Met Glu Asp Gly Leu Glu Pro Glu Lys
                85
Lys Arg Thr Arg Gly Leu Gly Ala Xaa Thr Lys Ile Thr Thr Ser His
```

105

110

Pro	Arg	Val 115	Pro	Ser	Leu	Thr	Thr 120	Val	Pro	Gln	Thr	Gln 125	Gly	Gln	Thr
Thr	Ala 130	Gln	Lys	Val	Ser	Lys 135	Lys	Thr	Gly	Pro	Arg 140	Cys	Ser	Thr	Ala
Ile 145	Ala	Thr	Gly	Leu	Lys 150	Asn	Gln	Lys	Pro	Val 155	Pro	Ala	Val	Pro	Val 160
Gln	Lys	Ser	Gly	Thr 165	Ser	Gly	Val	Pro	Pro 170	Met	Ala	Gly	Gly	Lys 175	Lys
Pro	Ser	Lys	Arg 180	Pro	Ala	Trp	Asp	Leu 185	Lys	Gly	Gln	Leu	Cys 190	Asp	Leu
Asn	Ala	Glu 195	Leu	Lys	Arg	Суз	Arg 200	Glu	Arg	Thr	Gln	Thr 205	Leu	Asp	Gln
Glu	Asn 210	Gln	Gln	Leu	Gln	Asp 215	Gln	Leu	Arg	Asp	Ala 220	Gln	Gln	Gln	Val
Lys 225	Ala	Leu	Gly	Thr	Glu 230	Arg	Thr	Thr	Leu	Glu 235	Gly	His	Leu	Ala	Lys 240
Val	Gln	Ala	Gln	Ala 245	Glu	Gln	Gly	Gln	Gln 250	Glu	Leu	Lys	Asn	Leu 255	Arg
Ala	Cys	Xaa	Leu 260	Glu	Leu	Glu	Glu	Arg 265	Leu	Ser	Thr	Gln	Glu 270	Gly	Leu
Val	Gln	Glu 275	Leu	Gln	Lys	Lys	Gln 280	Val	Glu	Leu	Gln	Glu 285	Glu	Arg	Arg
Gly	Leu 290	Met	Ser	Gln	Leu	Glu 295	Glu	Lys	Glu	Arg	Arg 300	Leu	Gln	Thr	Ser
Glu 305	Ala	Ala	Leu	Ser	Ser 310	Ser	Gln	Ala	Glu	Val 315	Ala	Ser	Leu	Arg	Gln 320
Glu	Thr	Val	Ala	Gln 325	Ala	Ala	Leu	Leu	Thr 330	Glu	Arg	Glu	Glu	Arg 335	Leu
His	Gly	Leu	Glu 340	Met	Glu	Arg	Arg	Arg 345	Leu	His	Asn	Gln	Leu 350	Gln	Glu
Leu	Lys	G1y 355	Asn	Ile	Arg	Val	Phe 360	Cys	Arg	Val	Arg	Pro 365	Val	Leu	Pro
	Glu 370		Thr	Pro		Pro		Leu	Leu		Phe		Ser	Gly	Pro

Gly Gly Pro Ser Asp Pro Pro Thr Arg Leu Ser Leu Ser Arg Ser Asp 385 390 395 400

405 410 415

Val Phe Glu Glu Ile Ala Met Leu Val Gln Ser Ala Leu Asp Gly Tyr \$435\$

Pro Xaa Cys Ile Phe Ala Tyr Gly Gln Thr Xaa Ser Gly Lys Thr Phe 450 \$450\$

Thr Met Glu Gly Gly Leu Gly Glu Thr Pro Xaa Gly Arg Ala Asp Pro 465 \$470\$

Ser Gly

<210> 1188

<211> 345

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (175)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1188

Thr Ala Ser Leu Ser Asn Ala Val Lys Ile Leu Leu Arg Trp Val Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Arg Tyr Ser Cys Pro Arg Ala Phe Val Thr Gly Met Pro Lys Arg Gly $$20^{\circ}$$

Lys Lys Gly Ala Val Ala Glu Asp Gly Asp Glu Leu Arg Thr Glu Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Glu Ala Lys Lys Ser Lys Thr Ala Ala Lys Lys Asn Asp Lys Glu Ala 50 55 60

Ala Gly Glu Gly Pro Ala Leu Tyr Glu Asp Pro Pro Asp Gln Lys Thr 65 70 75 80

Ser Pro Ser Gly Lys Pro Ala Thr Leu Lys Ile Cys Ser Trp Asn Val

Asp	Gly	Leu	Arg 100	Ala	Trp	Ile	Lys	Lys 105	Lys	Gly	Leu	Asp	Trp 110	Val	Lys
Glu	Glu	Ala 115	Pro	Asp	Ile	Leu	Cys 120	Leu	Gln	Glu	Thr	Lys 125	Cys	Ser	Glu
Asn	Lys 130	Leu	Pro	Ala	Glu	Leu 135	Gln	Glu	Leu	Pro	G1y 140	Leu	ser	His	Gln
туr 145	Trp	Ser	Ala	Pro	Ser 150	Asp	Lys	Glu	Gly	Tyr 155	Ser	Gly	Val	Gly	Leu 160
Leu	Ser	Arg	Gln	Cys 165	Pro	Leu	Lys	Val	Ser 170	Tyr	Gly	Ile		Xaa 175	Glu
Glu	His	Asp	Gln 180	Glu	Gly	Arg	Val	Ile 185	Val	Ala	Glu	Phe	Asp 190	Ser	Phe
Val	Leu	Val 195	Thr	Ala	Tyr	Val	Pro 200	Asn	Ala	Gly	Arg	Gly 205	Leu	Val	Arg
Leu	Glu 210	Tyr	Arg	Gln	Arg	Trp 215	Asp	Glu	Ala	Phe	Arg 220	Lys	Phe	Leu	Lys
Gly 225	Leu	Ala	Ser	Arg	Lys 230	Pro	Leu	Val	Leu	Cys 235	Gly	Asp	Leu	Asn	val 240
Ala	His	Glu	Glu	Ile 245	Asp	Leu	Arg	Asn	Pro 250	Lys	Gly	Asn	Lys	Lys 255	Asn
Ala	Gly	Phe	Thr 260	Pro	Gln	Glu	Arg	Gln 265	Gly	Phe	Gly	Glu	Leu 270	Leu	Gln
Ala	Val	Pro 275	Leu	Ala	Asp	Ser	Phe 280	Arg	His	Leu	Tyr	Pro 285	Asn	Thr	Pro
Tyr	Ala 290	Tyr	Thr	Phe	Trp	Thr 295	Tyr	Met	Met	Asn	Ala 300	Arg	Ser	Lys	Asn
Val 305	Gly	Trp	Arg	Leu	Asp 310	Tyr	Phe	Leu	Leu	Ser 315	His	Ser	Leu	Leu	Pro 320
Ala	Leu	Cys	Asp	Ser 325	Lys	Ile	Arg	Ser	Lys 330	Ala	Leu	Gly	Ser	Asp 335	His
Cys	Pro		Thr		Tyr	Leu	Ala	Leu							

345

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<210> 1189
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<211> 136

<212> PRT

<213> Homo sapiens

<400> 1189

Asp Ile Ser Thr Pro Ser Leu Thr Thr Asp His Ala Pro Leu Thr Ile 1 $$ 5 $$ 10 $$ 15

Ser Leu Lys Pro Asn His Pro Tyr Arg Thr Gln Cys Gln Tyr Pro Ile \$20\$

Pro Gln His Ala Leu Lys Arg Leu Lys Pro Val Ile Ile Arg Leu Leu $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Phe Pro Val Leu Lys Arg Asp Lys Pro Tyr Lys Leu Val Gln Asp Leu 65 70 75 80

Arg Leu Ile Asn Gln Ile Val Leu Pro Ile His Pro Val Val Pro Asn \$85\$ 90 95

Pro Tyr Thr Leu Leu Ser Ser Ile Pro Pro Ser Thr Thr His Tyr Ser 100 $$105\$

Val Leu Asp Leu Arg His Ala Phe Phe Thr Ile Ala Leu His Pro Ser

Ser Gln Pro Leu Phe Ala Phe Thr 130 135

<210> 1190

<211> 128

<212> PRT

<213> Homo sapiens

<220> <221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (14) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1190

Leu Xaa Gln Lys Thr Gln Pro Thr His Glu Lys Xaa Ala Xaa Ser Phe

Leu Gly Met Val Cys Ile Trp Val Xaa Ser Ile Gln Thr Ser Ile Asn 25

Thr Ser Phe Ile Leu Gly Leu Pro Asn Ser Phe Pro Gln Asp Leu Lys 40

Thr Ile Thr Met Ile Lys Val Ser Phe Ala Pro Cys Gln Arg Leu Gly 55

Pro Leu Pro Phe Pro Ser Arg Gln Tyr Ser Val Gln Leu Gly Leu Val 65 70 75

Pro Ser Leu Ser Val Arg Thr Glu Phe His Pro Arg Phe Ser Thr Gln 85

Ala Leu Cys Ser Gly Lys Val Lys Pro Ser Leu Lys Gly Ser Lys Ser 105

Ser Ala Ile Asp Arg Ala Ala Gly Gly Lys Arg Ser Arg Cys Ile Arg 115

<210> 1191

<211> 236

<212> PRT

<213> Homo sapiens

<400> 1191

Arg Ala Gly Ser Val Lys Arg Arg Gln Arg Gly Lys Met Ala Ala Ala 5 10

Val Pro Gln Arg Ala Trp Thr Val Glu Gln Leu Arg Ser Glu Gln Leu 20 25

Pro Lys Lys Asp Ile Ile Lys Phe Leu Gln Glu His Gly Ser Asp Ser 35 40 45

Phe Leu Ala Glu His Lys Leu Leu Gly Asn Ile Lys Asn Val Ala Lys $50 \hspace{1cm} 55 \hspace{1cm} 60$

Thr Ala Asn Lys Asp His Leu Val Thr Ala Tyr Asn His Leu Phe Glu 65 70 75 80

Thr Lys Arg Phe Lys Gly Thr Glu Ser Ile Ser Lys Val Ser Glu Gln 85 90 95

Val Lys Asn Val Lys Leu Asn Glu Asp Lys Pro Lys Glu Thr Lys Ser $100 \\ 105 \\ 110$

Glu Glu Thr Leu Asp Glu Gly Pro Pro Lys Tyr Thr Lys Ser Val Leu 115 \$120\$

Lys Lys Gly Asp Lys Thr Asn Phe Pro Lys Lys Gly Asp Val Val His 130 135 140

Cys Trp Tyr Thr Gly Thr Leu Gln Asp Gly Thr Val Phe Asp Thr Asn 145 150 155 160

Ile Gln Thr Ser Ala Lys Lys Lys Lys Asn Ala Lys Pro Leu Ser Phe 165 \$170\$

Lys Val Gly Val Gly Lys Val Ile Arg Gly Trp Asp Glu Ala Leu Leu 180 $$185\ \ \, 190\ \ \,]$

Thr Met Ser Lys Gly Glu Lys Ala Arg Leu Glu Ile Glu Pro Glu Trp 195 200 205

Ala Tyr Gly Lys Lys Gly Gln Pro Asp Ala Lys Ile Pro Pro Asp Ala 210 215 220

Lys Leu Thr Phe Glu Val Glu Leu Val Asp Ile Asp 225 230 235

<210> 1192 <211> 204

<212> PRT

<213> Homo sapiens

<400> 1192

Pro Ala Met Glu Ala Glu Ala Gly Gly Leu Glu Glu Leu Thr Asp Glu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Glu Met Ala Ala Leu Gly Lys Glu Glu Leu Val Arg Arg Leu Arg Arg

20 25 30

Glu Glu Ala Ala Arg Leu Ala Ala Leu Val Gln Arg Gly Arg Leu Met $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gln Glu Val Asn Arg Gln Leu Gln Gly His Leu Gly Glu Ile Arg Glu 50 \$55\$

Asp Leu Cys Cys Phe Leu Asp Ser Glu Arg Gln Arg Gly Arg Ala $85 \hspace{0.5cm} 90 \hspace{0.5cm} 95$

Ala Arg Gln Trp Gln Leu Phe Gly Thr Gln Ala Ser Arg Ala Val Arg $100 \\ 105 \\ 110$

Glu Asp Leu Gly Gly Cys Trp Gln Lys Leu Ala Glu Leu Glu Gly Arg \$115\$

Glu Glu Glu Leu Leu Arg Glu Asn Leu Ala Leu Lys Glu Leu Cys Leu 130 $$135\$

Ala Leu Gly Glu Glu Trp Gly Pro Arg Gly Gly Pro Ser Gly Ala Gly 145 150 150 160

Gly Ser Gly Ala Gly Pro Ala Pro Glu Leu Ala Leu Pro Pro Cys Gly $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$

Pro Arg Asp Leu Gly Asp Gly Ser Ser Ser Thr Gly Ser Val Gly Ser 180 $$185\$

Pro Asp Gln Leu Pro Leu Ala Cys Ser Pro Asp Asp 195 200

<210> 1193

<211> 66

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (56) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (59)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1193 Ser Gln Gln Thr Glu Leu Ile Thr Val Ile Leu Gly Val Phe Phe Cys 10 Arg Val Lys His Val Asn Ile Leu His Arg His Lys Tyr Lys His Asp Lys His Trp Thr Trp Lys Met Gly Ser Lys Phe Cys Thr Cys Ala Phe 40 Leu Tyr Phe Cys Cys Ile Phe Xaa Ser Cys Xaa Phe Ala Lys Tyr Ile 55 Ile Asn 65 <210> 1194 <211> 305 <212> PRT <213> Homo sapiens <400> 1194 Thr Cys Ala Gly Pro Arg Gly Ala Ala Cys Gly Arg Leu Arg Leu Pro Ala Ala Gly Ala Leu Leu Pro Ala Ala Gln Arg Arg Val His Arg Tyr Glu Glu Ser Glu Val Ile Ser Leu Pro Phe Leu Asp Gln Leu Val Ser Thr Leu Val Gly Leu Leu Ser Pro His Asn Pro Ala Leu Ala Ala Ala 50 Ala Leu Asp Tyr Arg Cys Pro Val His Phe Tyr Trp Val Arg Gly Glu Glu Ile Ile Pro Arg Gly His Arg Arg Gly Arg Ile Asp Asp Leu Arg Tyr Gln Ile Asp Asp Lys Pro Asn Asn Gln Ile Arg Ile Ser Lys Gln 100 105

Leu Ala Glu Phe Val Pro Leu Asp Tyr Ser Val Pro Ile Glu Ile Pro

Thr Ile Lys Cys Lys Pro Asp Lys Leu Pro Leu Phe Lys Arg Gln Tyr 130 135 140

125

120

Glu	Asn	His	Ile	Phe	Val	Gly	Ser	Lys	Thr	Ala	Asp	Pro	Cys	Cys	Tyr
145					150					155					160
	***	mh	a1 -	n		T				Ŧ	Ŧ			G1	
GIY	HIS	Thr	Gin	165	His	Leu	Leu	Pro	170	Lys	Leu	Arg	arg	175	Arg
				103					1,0					1,3	
Leu	Leu	Arg	Gln	Asn	Cys	Ala	Asp	Gln	Ile	Glu	Val	Val	Phe	Arg	Ala
			180					185					190		
												_			
Asn	Ala	Ile 195	Ala	Ser	Leu	Phe	Ala 200	Trp	Thr	Gly	Ala	Gln 205	Ala	Met	Tyr
		193					200					205			
Gln	Gly	Phe	Trp	Ser	Glu	Ala	Asp	Val	Thr	Arg	Pro	Phe	Val	Ser	Gln
	210					215	_				220				
Ala 225	Val	Ile	Thr	Asp	Gly 230	Lys	Tyr	Phe	Ser	Phe 235	Phe	Cys	Tyr	Gln	Leu 240
223					230					233					240
Asn	Thr	Leu	Ala	Leu	Thr	Thr	Gln	Ala	Asp	Gln	Asn	Asn	Pro	Arg	Lys
				245					250					255	
Asn	Ile	Cys	Trp 260	Gly	Thr	Gln	Ser	Lys 265	Pro	Leu	Tyr	Glu	Thr 270	He	Glu
			200					203					270		
Asp	Asn	Asp	Val	Lys	Gly	Phe	Asn	Asp	Asp	Val	Leu	Leu	Gln	Ile	Val
		275					280					285			
His	290	Leu	Leu	Asn	Arg	295	Lys	Glu	GIu	Lys	Ser 300	GIN	Leu	Leu	GLu
	250					295					300				
Asn															
305															
<210	> 13	95													
<211		_													
	> PF														
<213	> Hc	omo s	sapie	ns											
<220	>														
<221		TE													
<222															
<223	> Xa	a eq	uals	any	of	the	natu	rall	у ос	curr	ing	L-am	ino	acid	ls
<220	·>														
<221		TE													
<222															
1222	· v-					444		11				T 0 m			0

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1195

Gly Arg Ala Ala Pro Gln Leu Gln Asp Leu Ala Ser Ser Cys Pro Gln 5

Glu Glu Val Ser Gln Gln Gln Glu Ser Val Ser Xaa Leu Pro Ala Ser

Val His Pro Gln Leu Xaa His Gly Arg Ala Trp Arg Pro Ser Thr Cys

Ser Thr Asp Ser Arg Ser Pro Ala Phe Cys Gln Arg Pro Arg Thr Pro

Val Ser Ile Cys Cys Arg Ile Lys Arg Leu Phe Leu Gln Lys Gln Ser 70

Gln Leu Gln Ala Tyr Phe Asn Gln Met Gln Ile Ala Glu Ser Ser Tyr 90

Pro Gln Pro Ser Gln Gln 100

<210> 1196

<211> 123 <212> PRT

<213> Homo sapiens

<400> 1196

Ala Arg Gly Pro Ala Ala Ala Cys Pro Leu Arg Trp Pro Pro Ala Ala 1.0

Ala Arg Ala Met Ala Gly Lys Ala His Arg Leu Ser Ala Glu Glu Arg

Asp Gln Leu Leu Pro Asn Leu Arg Ala Val Gly Trp Asn Glu Leu Glu 35 40

Gly Arg Asp Ala Ile Phe Lys Gln Phe His Phe Lys Asp Phe Asn Arg

Ala Phe Gly Phe Met Thr Arq Val Ala Leu Gln Ala Glu Lys Leu Asp

His His Pro Glu Trp Phe Asn Val Tyr Asn Lys Val His Ile Thr Leu

Ser Thr His Glu Cys Ala Gly Leu Ser Glu Arg Asp Ile Asn Leu Ala 100 105

Ser Phe Ile Glu Gln Val Ala Val Ser Met Thr

<210> 1197

<211> 247

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1197

Ala Arg Gly Gly Lys Ser Gly Arg Ala Gly Gly Ala Gly Ala Arg 1 5 10 15

Arg Gly Gly Lys Glu Leu Arg Val Ala Ala Glu Xaa Pro Arg Xaa Gln

Arg Arg Pro Thr Gln Pro Ser Arg Arg Arg Arg Arg Ala Pro Met Ala

Asp Glu Ser Asn His Asp Pro Gln Phe Glu Pro Ile Val Ser Leu Pro 65 70 75 80

Glu Glu Glu Ile Lys Thr Leu Glu Glu Asp Glu Glu Glu Leu Phe Lys 85 90 95

Met Arg Ala Lys Leu Phe Arg Phe Ala Ser Glu Asn Asp Leu Pro Glu 100 105 110

Trp Lys Glu Arg Gly Thr Gly Asp Val Lys Leu Leu Lys His Lys Glu 115 120 125

Lys Gly Ala Ile Arg Leu Leu Met Arg Arg Asp Lys Thr Leu Lys Ile 130 135

Cys Ala Asn His Tyr Ile Thr Pro Met Met Glu Leu Lys Pro Asn Ala 145 150 155 160

Gly Ser Asp Arg Ala Trp Val Trp Asn Thr His Ala Asp Phe Ala Asp 165 \$170\$

Glu Cys Pro Lys Pro Glu Leu Leu Ala Ile Arg Phe Leu Asn Ala Glu 180 \$185\$

Asn Ala Gln Lys Phe Lys Thr Lys Phe Glu Glu Cys Arg Lys Glu Ile 195 200 205

Lys Val Ala Glu Lys Leu Glu Ala Leu Ser Val Lys Glu Glu Thr Lys 225 \$230\$

Glu Asp Ala Glu Glu Lys Gln 245

<210> 1198

<211> 60

<212> PRT

<213> Homo sapiens

<400> 1198

Phe Gly Phe Ser Thr Cys Ile Thr Asn Pro Ala Pro Ile Cys His Ile 1 $51015151515151015151015101$

Lys Val Cys Asp Leu Lys Phe Ser Gln His Pro His Gln Thr Leu Phe \$20\$ \$25\$ 30

Phe Tyr Val Phe Phe Ala Thr Tyr Glu Cys Phe Glu Asn Lys Val Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Met Ser Leu Leu Glu Lys Lys Lys Lys Lys Lys Lys 50 55 60

<210> 1199

<211> 198

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (189)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE
<pre><222> (194) <223> Xaa equals any of the naturally occurring L-amino acids</pre>
<220> <221> SITE
<222> (195)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1199
Ser Asp Lys Trp Pro Thr Ala Val Arg Ala Asn Gly His Leu Leu Leu 1 5 10 15
Asn Ser Glu Lys Met Ser Lys Ser Thr Gly Asn Phe Leu Thr Leu Thr 20 25 30
Gln Ala Ile Asp Lys Phe Ser Ala Asp Gly Met Arg Leu Ala Leu Ala 35 40 45
•
Asp Ala Gly Asp Thr Val Glu Asp Ala Asn Phe Val Glu Ala Met Ala 50 55 60
Asp Ala Gly Ile Leu Arg Leu Tyr Thr Trp Val Glu Trp Val Lys Glu 65 70 75 80
Met Val Ala Asn Trp Asp Ser Leu Arg Ser Gly Pro Ala Ser Thr Phe
Asn Asp Arg Val Phe Ala Ser Glu Leu Asn Ala Gly Ile Ile Lys Thr 100 105 110
Asp Gln Asn Tyr Glu Lys Met Met Phe Lys Glu Ala Leu Lys Thr Gly 115 120 125
Phe Phe Glu Phe Gln Ala Ala Lys Asp Lys Tyr Arg Glu Leu Ala Val
130 135 140
Glu Gly Met His Arg Glu Leu Val Phe Arg Phe Ile Glu Val Gln Thr
145 150 155 160
Leu Leu Leu Ala Pro Phe Cys Pro His Leu Cys Glu Ala His Leu Gly
165 170 175

180 185 190 Cys Xaa Xaa Gly Pro Val

195

His Ser Trp Gly Lys Pro Asp Phe Asn Tyr Gly Met Xaa Ser Trp Ala

<210> 1200 <211> 174 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (16) <223> Xaa equals any of the naturally occurring L-amino acids Leu Tyr Gly Cys Glu Lys Thr Thr Glu Gly Gly Gly Arg Glu Xaa Ala Gly Lys Met Val Val Thr Arg Ser Ala Arg Ala Lys Ala Ser Ile 25 Gln Ala Ala Ser Ala Glu Ser Ser Gly Gln Lys Ser Phe Ala Ala Asn 40 Gly Ile Gln Ala His Pro Glu Ser Ser Thr Gly Ser Asp Ala Arg Thr 50 55 Thr Ala Glu Ser Gln Thr Thr Gly Lys Gln Ser Leu Ile Pro Arg Thr 65 Pro Lys Ala Arg Lys Arg Lys Ser Arg Thr Thr Gly Ser Leu Pro Lys 9.0 Gly Thr Glu Pro Ser Thr Asp Gly Glu Thr Ser Glu Ala Glu Ser Asn 100 Tyr Ser Val Ser Glu His His Asp Thr Ile Leu Arg Val Thr Arg Arg 115 120 Arg Gln Ile Leu Ile Ala Cys Ser Pro Val Ser Ser Val Arg Lys Lys 135 Pro Lys Val Thr Pro Thr Lys Glu Ser Tyr Thr Glu Glu Ile Val Ser 145 150 155 160

Glu Ala Glu Ser His Val Ser Gly Ile Ser Arg Asn Cys Ala

170

165

<210> 1201

<211> 689

<212> PRT

<213> Homo sapiens

<400> 1201 Trp Ser Thr Glu Val Glu Pro Ser Gly Ile Ile Phe Lys Asn Ser Lys Thr Gly Lys Val Asp Asn Ile Gln Ala Gly Glu Leu Thr Glu Gly Ile Trp Arg Arg Val Ala Leu Gly His Gly Leu Lys Leu Leu Thr Lys Asn Gly His Val Tyr Lys Tyr Asp Gly Phe Arg Glu Ser Glu Phe Glu Lys 5.5 Leu Ser Asp Phe Phe Lys Thr His Tyr Arg Leu Glu Leu Met Glu Lys 70 Asp Leu Cys Val Lys Gly Trp Asn Trp Gly Thr Val Lys Phe Gly Gly Gln Leu Leu Ser Phe Asp Ile Gly Asp Gln Pro Val Phe Glu Ile Pro Leu Ser Asn Val Ser Gln Cys Thr Thr Gly Lys Asn Glu Val Thr Leu 120 Glu Phe His Gln Asn Asp Asp Ala Glu Val Ser Leu Met Glu Val Arg Phe Tyr Val Pro Pro Thr Gln Glu Asp Gly Val Asp Pro Val Glu Ala 150 155 Phe Ala Gln Asn Val Leu Ser Lys Ala Asp Val Ile Gln Ala Thr Gly 165 170 Asp Ala Ile Cys Ile Phe Arg Glu Leu Gln Cys Leu Thr Pro Arg Gly 180 185 Arg Tyr Asp Ile Arg Ile Tyr Pro Thr Phe Leu His Leu His Gly Lys 200 Thr Phe Asp Tyr Lys Ile Pro Tyr Thr Thr Val Leu Arg Leu Phe Leu 210 215 Leu Pro His Lys Asp Gln Arg Gln Met Phe Phe Val Ile Ser Leu Asp 225 230 Pro Pro Ile Lys Gln Gly Gln Thr Arg Tyr His Phe Leu Ile Leu Leu

Phe Ser Lys Asp Glu Asp Ile Ser Leu Thr Leu Asn Met Asn Glu Glu 260 265 270

250

Glu	Val	G1u 275		Arc	Phe	Glu	Gly 280		Leu	Thr	Lys	Asn 285		Ser	Gly
Ser	Leu 290		Glu	Met	Val	Ser 295		Val	. Met	Lys	300		Val	Asn	Arg
Lys 305		Thr	Val	Pro	Gly 310		Phe	Gln	Gly	His 315		Gly	Ala	Gln	Cys 320
Ile	Thr	Cys	Ser	Tyr 325		Ala	Ser	Ser	Gly 330		Leu	туг	Pro	Leu 335	Glu
Arg	Gly	Phe	11e 340		Val	His	Lys	Pro 345		Val	His	Ile	Arg 350	Phe	Asp
Glu	Ile	ser 355		Val	Asn	Phe	Ala 360	Arg	Gly	Thr	Thr	Thr 365	Thr	Arg	Ser
Phe	Asp 370	Phe	Glu	Ile	Glu	Thr 375	Lys	Gln	Gly	Thr	Gln 380	Tyr	Thr	Phe	Ser
ser 385	Ile	Glu	Arg	Glu	Glu 390	Tyr	Gly	Lys	Leu	Phe 395	Asp	Phe	Val	Asn	Ala 400
Lys	Lys	Leu	Asn	1le 405	Lys	Asn	Arg	Gly	Leu 410	Lys	Glu	Gly	Met	Asn 415	Pro
Ser	Tyr	Asp	Glu 420	Tyr	Ala	Asp	ser	Asp 425	Glu	Asp	Gln	His	Asp 430	Ala	Tyr
Leu	Glu	Arg 435	Met	Lys	Glu	Glu	Gly 440	Lys	Ile	Arg	Glu	Glu 445	Asn	Ala	Asn
Asp	ser 450	ser	Asp	Asp	Ser	Gly 455	Glu	Glu	Thr	Asp	Glu 460	Ser	Phe	Asn	Pro
Gly 465	Glu	Glu	Glu	Glu	Asp 470	Val	Ala	Glu	Glu	Phe 475	Asp	Ser	Asn	Ala	Ser 480
Ala	Ser	Ser	Ser	Ser 485	Asn	Glu	Gly	Asp	Ser 490	Asp	Arg	Asp	Glu	Lys 495	Lys
Arg	Lys	Gln	Leu 500	Lys	Lys	Ala	Lys	Met 505	Ala	Lys	Asp	Arg	Lys 510	Ser	Arg
Lys	Lys	Pro 515	Val	Glu	Val	Lys	Lys 520	Gly	Lys	Asp	Pro	Asn 525	Ala	Pro	Lys
Arg	Pro 530	Met	Ser	Ala		Met 535	Leu	Trp	Leu	Asn	Ala 540	Ser	Arg	Glu	Lys

Ile Lys Ser Asp His Pro Gly Ile Ser Ile Thr Asp Leu Ser Lys Lys 545 550 555

Ala Gly Glu Ile Trp Lys Gly Met Ser Lys Glu Lys Lys Glu Glu Trp 565 570 575

Asp Arg Lys Ala Glu Asp Ala Arg Arg Asp Tyr Glu Lys Ala Met Lys
580 585 590

Glu Tyr Glu Gly Gly Arg Gly Glu Ser Ser Lys Arg Asp Lys Ser Lys 595 600 605

Lys Lys Lys Lys Val Lys Val Lys Met Glu Lys Lys Ser Thr Pro Ser 610 615 620

Arg Gly Ser Ser Ser Lys Ser Ser Ser Arg Gln Leu Ser Glu Ser Phe 625 630 635

Lys Ser Lys Glu Phe Val Ser Ser Asp Glu Ser Ser Ser Gly Glu Asn $645 \hspace{1.5cm} 650 \hspace{1.5cm} 655 \hspace{1.5cm}$

Lys Ser Lys Lys Lys Arg Arg Arg Ser Glu Asp Ser Glu Glu Glu Glu 660 665 670

Leu Ala Ser Thr Pro Pro Ser Ser Glu Asp Ser Ala Ser Gly Ser Asp 675 680 685

Glu

<210> 1202

<211> 65

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1202

Asn Leu Ser Glu Leu Leu Gln Ala Asp Phe Leu Gly Gln Gly Glu Ile 1 $$ 5 $$ 10 $$ 15

Met Val Leu Lys Cys Leu Ile Arg Ser His Thr Gln Phe Gln Val His
20 25 30

Tyr Ser Lys Ser Met Xaa Thr Ala Pro Thr Ala Thr Asn Leu Leu Leu

35 40 45 Pro Ser Arg Val Ala Cys Thr Ile Phe Ile Ala Cys Pro Gly Trp Val 55 60 Glv 65 <210> 1203 <211> 379 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (132) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (255) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1203 Gly Arg Leu Arg Ala Leu Ala Leu Ala Val Ser Ala Pro Gly Leu Thr 10 Phe Lys Met Val His Ala Glu Ala Phe Ser Arg Pro Leu Ser Arg Asn 20 Glu Val Val Gly Leu Ile Phe Arg Leu Thr Ile Phe Gly Ala Val Thr 40 Tyr Phe Thr Ile Lys Trp Met Val Asp Ala Ile Asp Pro Thr Arg Lys 55 Gln Lys Val Glu Ala Gln Lys Gln Ala Glu Lys Leu Met Lys Gln Ile 65 75 Gly Val Lys Asn Val Lys Leu Ser Glu Tyr Glu Met Ser Ile Ala Ala 85 90 His Leu Val Asp Pro Leu Asn Met His Val Thr Trp Ser Asp Ile Ala 105

Gly Leu Asp Asp Val Ile Thr Asp Leu Lys Asp Thr Val Ile Leu Pro 120 Ile Lys Lys Xaa His Leu Phe Glu Asn Ser Arg Leu Leu Gln Pro Pro

125

Lys Gly Val Leu Leu Tyr Gly Pro Pro Gly Cys Gly Lys Thr Leu Ile Ala Lys Ala Thr Ala Lys Glu Ala Gly Cys Arg Phe Ile Asn Leu Gln Pro Ser Thr Leu Thr Asp Lys Trp Tyr Gly Glu Ser Gln Lys Leu Ala Ala Ala Val Phe Ser Leu Ala Ile Lys Leu Gln Pro Ser Ile Ile Phe Ile Asp Glu Ile Asp Ser Phe Leu Arg Asn Arg Ser Ser Ser Asp His Glu Ala Thr Ala Met Met Lys Ala Gln Phe Met Ser Leu Trp Asp Gly Leu Asp Thr Asp His Ser Cys Gln Val Ile Val Met Gly Ala Xaa Asn Arg Pro Gln Asp Leu Asp Ser Ala Ile Met Arg Arg Met Pro Thr Arg Phe His Ile Asn Gln Pro Ala Leu Lys Gln Arg Glu Ala Ile Leu Lys Leu Ile Leu Lys Asn Glu Asn Val Asp Arg His Val Asp Leu Leu Glu Val Ala Gln Glu Thr Asp Gly Phe Ser Gly Ser Asp Leu Lys Glu Met Cys Arg Asp Ala Ala Leu Leu Cys Val Arg Glu Tyr Val Asn Ser Thr Ser Glu Glu Ser His Asp Glu Asp Glu Ile Arg Pro Val Gln Gln Gln

Asp Leu His Arg Ala Ile Glu Lys Met Lys Lys Ser Lys Asp Ala Ala

Phe Gln Asn Val Leu Thr His Val Cys Leu Asp

<210> 1204 <211> 77

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<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1204
Leu Ser Xaa Pro Gly Ala Trp Phe Tyr Val Pro Val Ala Met Phe Pro
Val Ser Ser Gly Cys Phe Gln Glu Gln Gln Glu Thr Asn Lys Ser Leu
Thr Leu Leu Arg Cys Ser Gln Arg Asp Thr Ser Pro Leu Met Asp Gly
         35
                             40
                                                 45
Gln Thr Trp Ala Gly Ser Val Ser Leu Asn His Pro Pro Leu Pro Gln
                         55
Leu Pro Thr Thr Asp Thr Ser Asp Asp Thr Pro Gly Lys
                    7.0
<210> 1205
<211> 305
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (222)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (223)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (227)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (235)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220> <221> SITE <222> (239) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (273) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (277) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (284) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1205 Phe Thr Ser Val Ser Cys Thr Ser Thr Ser Ser Phe Ser Ser Asn Ala Ala Gln Arg Phe Phe Leu Leu His Gly Thr Lys Cys Asn Tyr Ser Pro 25 30 Gly Ser Pro Val Tyr Phe Cys Tyr Glu Ser Ser Tyr Phe Asn Thr Thr 35 45 40 Ser Arg Pro Thr Ser Cys Ser Ala Val Ser Ser Ala Val Asn Ile Met Asn Gly Ser Gln Met His Ile Asn Pro Ala Asn Lys Ser Leu Pro Pro 7.0 75 Thr Phe Gly Pro Ala Thr Leu Phe Asn His Phe Ser Ser Leu Phe Asp 85 Ser Ser Gln Val Pro Ala Asn Gln Gly Trp Gly Asp Gly Pro Leu Ser 100 105 Ser Arg Val Ala Thr Asp Ala Ser Phe Thr Val Gln Ser Ala Phe Leu 120 Gly Asn Ser Val Leu Gly His Leu Glu Asn Met His Pro Asp Asn Ser 130 135 Lys Ala Pro Gly Phe Arg Pro Pro Ser Gln Arg Val Ser Thr Ser Pro

145

150

Val Gly Leu Pro Ser Ile Asp Pro Ser Gly Ser Ser Pro Ser Ser Ser 165 170 175

Ser Ala Pro Leu Ala Ser Phe Ser Gly Ile Pro Gly Thr Arg Val Phe 180 \$180\$

Leu Gln Gly Pro Ala Pro Val Gly Thr Pro Ser Phe Asn Arg Gln His 195 \$200\$

Phe Ser Pro His Pro Trp Thr Ser Ala Ser Asn Ser Cys Xaa Xaa Pro 210 215 220

Ile Pro Xaa Val Ser Ser Gly Ser Ser Ser Xaa Leu Ser Ala Xaa Ser 225 230 235 240

Cys Pro Thr Asn Val Gly Ala Asn Gln Lys Gly Val Ser Ala Ser Gln 245 250 255

Gly Phe Gly Lys Val Thr Phe Pro Gln Leu Gly Asn Arg Arg Thr \$260\$ \$265\$

Xaa Ala Arg Ile Xaa Gly Lys Gly Gly Gly Phe Xaa Trp His Lys Ala 275 \$280\$

Pro Gly Gly Asn Gln Phe Phe Cys Ser Val Ser Leu Trp Asp Lys Val 290 295

Gly 305

<210> 1206

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33) <223> Xaa equals any of the naturally occurring L-amino acids

--- had equals any of the naturally occurring 2 amino actual

<220>

<221> SITE <222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (52) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (56) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1206 Arg Glu His Ser Ala Phe Asp Leu Trp Glu Ile Ser Ser Trp Xaa Pro 10 Trp Cys Cys Thr Asp His Gln Glu Glu Leu Lys Ser Ser Gly Asn Leu 20 25 30 Xaa Lys Ile Lys Ser Pro Pro Ala Arg Xaa Leu Ser Lys Ile Thr Gly 40 Arg Leu Leu Xaa Gln His Val Xaa Glu Cys Ala Ser Gly 55 <210> 1207 <211> 177 <212> PRT <213> Homo sapiens <400> 1207 Asn Ser Ala Gln Gly Met Ala Gly Ser Pro Glu Leu Val Val Leu Asp Pro Pro Trp Asp Lys Glu Leu Ala Ala Gly Thr Glu Ser Gln Ala Leu 25 Val Ser Ala Thr Pro Arg Glu Asp Phe Arg Val Arg Cys Thr Ala Lys 35 40 45 Arg Ala Val Thr Glu Met Leu Gln Leu Cys Gly Arg Phe Val Gln Lys 50 Leu Gly Asp Ala Leu Pro Glu Glu Ile Arg Glu Pro Ala Leu Arg Asp Ala Gln Trp Thr Phe Glu Ser Ala Val Gln Glu Asn Ile Ser Ile Asn 85 90

Gly Gln Ala Trp Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp

100 105 110

Ile Lys Val Leu Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala 115 120 125

Thr Lys Arg Lys Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys 130 135 140

Thr Ile Lys Ala Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val 145 150 155 160

His Pro Leu Asp Leu Lys Tyr Asp Pro Asp Pro Val Leu Ala Cys Ile 165 170 175

Asn

<210> 1208

<211> 288

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (277)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1208

Pro His Arg Val Asp Thr Arg Arg Arg Asp Pro Val Pro Arg Ser Arg $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Leu Ser His Gly Thr Gly Arg Val Gly Ala Ala Ala Gly Glu Ser 20 25 30

Ser Arg Ala Pro Arg Cys Trp Ser Gly Ser Arg Pro Arg Ala Pro Ala

ASP Pro Pro Arg His Arg Pro Leu Leu Cys Leu Ser Arg Arg Gly Ser 50 60

Pro Pro His His Leu Gly Cys Leu Leu Gly Glu Ser Phe Met Gln Leu 65 70 75 80

Gln Gln Arg Leu Leu Arg Glu Lys Glu Ala Lys Ile Arg Lys Ala Leu $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Asp Arg Leu Arg Lys Lys Arg His Leu Leu Arg Arg Gln Arg Thr Arg

Arg Glu Phe Pro Val Ile Ser Val Val Gly Tyr Thr Asn Cys Gly Lys 115 120 125

Thr Thr Leu Ile Lys Ala Leu Thr Gly Asp Ala Ala Ile Gln Pro Arg 130 135 140

Asp Gln Leu Phe Ala Thr Leu Asp Val Thr Ala His Ala Gly Thr Leu 145 \$150\$

Pro Ser Arg Met Thr Val Leu Tyr Val Asp Thr Ile Gly Phe Leu Ser 165 170 175

Gln Leu Pro His Gly Leu Ile Glu Ser Phe Ser Ala Thr Leu Glu Asp 180 185 190

Val Ala His Ser Asp Leu Ile Leu His Val Arg Asp Val Ser His Pro \$195\$ 200 205

Glu Ala Glu Leu Gln Lys Cys Ser Val Leu Ser Thr Leu Arg Gly Leu 210 \$215\$

Gln Leu Pro Ala Pro Leu Leu Asp Ser Met Val Glu Val His Asn Lys 225 230235235

Val Asp Leu Val Pro Gly Tyr Ser Pro Thr Glu Pro Asn Val Pro 245 250 255

Val Ser Ala Leu Arg Gly His Gly Leu Gln Glu Leu Lys Leu Ser Ser 260 265 270

Met Arg Arg Phe Xaa Arg Arg Arg Gly Asp Arg Ser Ser Leu Ser Val 275 280 285

<210> 1209 <211> 327

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (261)

<223> Xaa equals any of the naturally occurring L-amino acids <400> 1209 Asn Ile Leu Gly Gly Gly Lys Trp Phe Leu Arg Gly Ile Leu Leu Ile 5 10 Leu Pro Gln Val Tyr Leu Pro Cys Val Leu Gln Thr Lys Xaa Arg Tyr 25 Val Gly Tyr Met Tyr Glu Thr Leu Asp Gln Lys Asp Pro Val Phe Asp Ala Lys Gly Ile Glu Thr Val Arg Arg Asp Ser Cys Pro Ala Val Ser Lys Ile Leu Glu Arg Ser Leu Lys Leu Leu Phe Glu Thr Arg Asp Ile Ser Leu Ile Lys Gln Tyr Val Gln Arg Gln Cys Met Lys Leu Leu Glu Gly Lys Ala Ser Ile Gln Asp Phe Ile Phe Ala Lys Glu Tyr Arg Gly 105 Ser Phe Ser Tyr Lys Pro Gly Ala Cys Val Pro Ala Leu Glu Leu Thr 115 120 Arg Lys Met Leu Thr Tyr Asp Arg Ser Glu Pro Gln Val Gly Glu 135 Arg Val Pro Tyr Val Ile Ile Tyr Gly Thr Pro Gly Val Pro Leu Ile 150 Gln Leu Val Arg Arg Pro Val Glu Val Leu Gln Asp Pro Thr Leu Arg 170 Leu Asn Ala Thr Tyr Tyr Ile Thr Lys Gln Ile Leu Pro Pro Leu Ala 180 185 Arg Ile Phe Ser Leu Ile Gly Ile Asp Val Phe Ser Trp Tyr His Glu Leu Pro Arg Ile His Lys Ala Thr Ser Ser Ser Arg Ser Glu Pro Glu 215 Gly Arg Lys Gly Thr Ile Ser Gln Tyr Phe Thr Thr Leu His Cys Pro 225 230 Val Cys Asp Asp Leu Thr Gln His Gly Ile Cys Ser Lys Cys Arg Ser

250

Gln Pro Gln His Xaa Ala Val Ile Leu Asn Gln Glu Ile Arg Glu Leu 260 265 270

Glu Arg Gln Glu Glu Gln Leu Val Lys Ile Cys Lys Asn Cys Thr Gly 275 280 285

Cys Phe Asp Arg His Ile Pro Cys Val Ser Leu Asn Cys Pro Val Leu 290 295 300

Phe Lys Leu Ser Arg Val Asn Arg Glu Leu Ser Lys Ala Pro Tyr Leu 305 310 315

Arg Gln Leu Leu Asp Gln Phe 325

<210> 1210

<211> 676

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (374)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1210

Pro Val Leu Arg Thr His Pro Gly Pro Gln Ser Leu Pro Arg Val Pro 1 $$ 5 $$ 10 $$ 15

Gly Val Pro Cys Gly Gly Leu Leu Glu Pro Leu Ser Arg Ala Glu Val 20 25 30

Ser Pro Arg Leu Gly Leu Arg Arg Asp Leu Leu Gly Gly Met Ala Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Pro Gly Ser Ser Thr Val Phe Leu Leu Ala Leu Thr Ile Ile Ala Ser 50 55 60

Thr Trp Ala Leu Thr Pro Thr His Tyr Leu Thr Lys His Asp Val Glu 65 70 75 80

Arg Leu Lys Ala Ser Leu Asp Arg Pro Phe Thr Asn Leu Glu Ser Ala 85 90 95

Phe Tyr Ser Ile Val Gly Leu Ser Ser Leu Gly Ala Gln Val Pro Asp $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Val	Asp 130	Ser	Leu	Phe	Tyr	Ala 135	Ala	Gln	Ala	Ser	Gln 140		Leu	Ser	Gly
Cys 145	Glu	Ile	Ser	Ile	Ser 150		Glu	Thr	Lys	Asp 155	Leu	Leu	Leu	Ala	Ala 160
Val	Ser	Glu	Asp	Ser 165	Ser	Val	Thr	Gln	Ile 170	Tyr	His	Ala	Val	Ala 175	Ala
Leu	Ser	Gly	Phe 180	Gly	Leu	Pro	Leu	Ala 185	Ser	Gln	Glu	Ala	Leu 190	Ser	Ala
Leu	Thr	Ala 195	Arg	Leu	Ser	Lys	Glu 200	Glu	Thr	Val	Leu	Ala 205	Thr	Val	Gln
Ala	Leu 210	Gln	Thr	Ala	Ser	His 215	Leu	Ser	Gln	Gln	Ala 220	Asp	Leu	Arg	Ser
Ile 225	Val	Glu	Glu	Ile	Glu 230	Asp	Leu	Val	Ala	Arg 235	Leu	Asp	Glu	Leu	Gly 240
Gly	Val	Tyr	Leu	Gln 245	Phe	Glu	Glu	Gly	Leu 250	Glu	Thr	Thr	Ala	Leu 255	Phe
Val	Ala	Ala	Thr 260	Tyr	Lys	Leu	Met	Asp 265	His	Val	Gly	Thr	Glu 270	Pro	Ser
Ile	Lys	Glu 275	Asp	Gln	Va 1	Ile	Gln 280	Leu	Met	Asn	Ala	11e 285	Phe	Ser	Lys
Lys	Asn 290	Phe	Glu	Ser	Leu	Ser 295	Glu	Ala	Phe	Ser	Va1 300	Ala	Ser	Ala	Ala
Ala 305	Val	Leu	Ser	His	Asn 310	Arg	Tyr	His	Val	Pro 315	Val	Val	Val	Val	Pro 320
Glu	Gly	Ser	Ala	Ser 325	Asp	Thr	His	Glu	Gln 330	Ala	Ile	Leu	Arg	Leu 335	Gln
Val	Thr	Asn	Val 340	Leu	Ser	Gln	Pro	Leu 345	Thr	Gln	Ala	Thr	Val 350	Lys	Leu
		355	Lys				360	Ī				365		-	
	370		Pro			375					380				
Lys		Ser	Ser		Tyr		Asp	Phe		Val		Val	Glu		Asp

Asn	Arg	Tyr	Ile	Ala 405	Asn	Thr	Val	Glu	Leu 410	Arg	Val	Lys	Ile	Ser 415	
Glu	Val	Gly	Ile 420	Thr	Asn	Val	Asp	Leu 425	Ser	Thr	Val	Asp	Lys 430	Asp	Gln
Ser	Ile	Ala 435	Pro	Lys	Thr	Thr	Arg 440	Val	Thr	Tyr	Pro	Ala 445		Ala	Lys
Gly	Thr 450	Phe	Ile	Ala	Asp	Ser 455	His	Gln	Asn	Phe	Ala 460	Leu	Phe	Phe	Gln
Leu 465	Val	Asp	Val	Asn	Thr 470	Gly	Ala	Glu	Leu	Thr 475	Pro	His	Gln	Thr	Phe 480
Val	Arg	Leu	His	Asn 485	Gln	Lys	Thr	Gly	Gln 490	Glu	Val	Val	Phe	Val 495	Ala
Glu	Pro	Asp	Asn 500	Lys	Asn	Val	Tyr	Lys 505	Phe	Glu	Leu	Asp	Thr 510	Ser	Glu
Arg	Lys	Ile 515	Glu	Phe	Asp	Ser	Ala 520	Ser	Gly	Thr	Tyr	Thr 525	Leu	Tyr	Leu
Ile	Ile 530	Gly	Asp	Ala	Thr	Leu 535	Lys	Asn	Pro	Ile	Leu 540	Trp	Asn	Val	Ala
Asp 545	Val	Val	Ile	Lys	Phe 550	Pro	Glu	Glu	Glu	Ala 555	Pro	Ser	Thr	Val	Leu 560
Ser	Gln	Asn	Leu	Phe 565	Thr	Pro	Lys	Gln	Glu 570	Ile	Gln	His	Leu	Phe 575	Arg
Glu	Pro	Glu	Lys 580	Arg	Pro	Pro	Thr	Val 585	Val	Ser	Asn	Thr	Phe 590	Thr	Ala
Leu	Ile	Leu 595	Ser	Pro	Leu	Leu	Leu 600	Leu	Phe	Ala	Leu	Trp 605	Ile	Arg	Ile
Gly	Ala 610	Asn	Val	Ser	Asn	Phe 615	Thr	Phe	Ala	Pro	Ser 620	Thr	Ile	Ile	Phe
His 625	Leu	Gly	His	Ala	Ala 630	Met	Leu	Gly	Leu	Met 635	Tyr	Val	Tyr	Trp	Thr 640
Gln	Leu	Asn	Met	Phe 645	Gln	Thr	Leu	Lys	Tyr 650	Leu	Ala	Ile	Leu	Gly 655	Ser

Val Thr Phe Leu Ala Gly Asn Arg Met Leu Ala Gln Gln Ala Val Lys $660 \hspace{1.5cm} 665 \hspace{1.5cm} 665 \hspace{1.5cm} 670 \hspace{1.5cm}$

<213> Homo sapiens

```
Arg Thr Ala His
   675
<210> 1211
<211> 56
<212> PRT
<213> Homo sapiens
<400> 1211
His Val Cys Leu Thr Leu Met Glu Gly Ile Asn Pro Gln Asn Phe Leu
                                  10
Pro Arg Glu Leu Gly Asn Cys Pro Arg Asn Lys Pro Cys Thr Val Glu
            20
                               25
Trp Thr Trp Ile Ser Asn Asn Leu Leu Cys Arg Ile Cys Ser Leu
        35
                           40
Val Ile Val Trp Cys Val Ile Leu
<210> 1212
<211> 61
<212> PRT
<213> Homo sapiens
<400> 1212
Ser Tyr Pro Ala Ala Lys Ser Ser Val Ile Phe Gly Ala Leu Arg Ile
Thr Leu Val Ser Ala His Phe Pro Phe Cys Leu Pro Tyr Lys Ala Gln
Asn Arg Val Gly Lys Lys Tyr Glu Thr Ser Thr Val Ser Thr Phe Leu
        35
                       40
Glu Val Trp Tyr Leu Val Ser Arg Leu Arg Pro Gln Asp
                      55
<210> 1213
<211> 260
<212> PRT
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<220> <221> SITE <222> (205) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1213 Cys Pro Pro Glu Cys Arg Trp Cys Val Ala Arg Leu Ala Leu Arg Glu 5 10 15 Ser Trp Gly Leu Leu Pro Glu Arg Tyr Gly Tyr Val Asp Arg Asn Arg 25 Ile Phe Gly Cys Asp Pro Pro Tyr Tyr Ala Val Leu Glu Gly Glu Gln 40 Phe Thr Ser Gly Val Ser Thr Leu Gln Glu Glu Thr Thr Val Ser Leu 50 Asn Thr Val Asp Ser Ile Glu Ser Phe Val Ala Asp Ile Asn Ser Gly 65 70 His Trp Asp Thr Val Leu Gln Ala Ile Gln Ser Leu Lys Leu Pro Asp Lys Thr Leu Ile Asp Leu Tyr Glu Gln Val Val Leu Glu Leu Ile Glu 100 105 Leu Arg Glu Leu Gly Ala Ala Arg Ser Leu Leu Arg Gln Thr Asp Pro 115 Met Ile Met Leu Lys Gln Thr Gln Pro Glu Arg Tyr Ile His Leu Glu 135 140 Asn Leu Leu Ala Arg Ser Tyr Phe Asp Pro Arg Glu Ala Tyr Pro Asp Gly Ser Ser Lys Glu Lys Arg Arg Ala Ala Ile Ala Glm Ala Leu Ala 165 170 Gly Glu Val Ser Val Val Pro Pro Ser Arg Leu Met Ala Leu Leu Gly 180 Gln Ala Leu Lys Trp Gln Gln His Gln Gly Leu Leu Xaa Pro Gly Met 200 Thr Ile Asp Leu Phe Arg Gly Lys Ala Ala Val Lys Asp Val Glu Glu

215

230

Glu Lys Phe Pro Thr Gln Leu Ser Arg His Ile Lys Phe Gly Gln Lys

235

210

```
Ser His Val Glu Cys Ala Arg Phe Ser Pro Asp Gly Pro Val Phe Gly
                                    250
His Trp Val Cys
           260
<210> 1214
<211> 95
<212> PRT
<213> Homo sapiens
<400> 1214
Lys Gln Asn Ile Pro Tyr Val Ser Phe Ser Ile Gly Gln Lys His Phe
Asp Thr Met Phe Val Lys His Leu Trp Arg Gly Ala Leu Leu Asn Ala
                                25
Ala Ser Ala Val Asn Pro Gly Gly Lys Gly Ser Ala Ser Ser Gln Glu
         35
                            40
Pro Ser Pro Ser Ile Asn Arg Glu Leu Lys Gln Ala Phe Phe Ser
Tyr Arg Lys Ala Ala Ile Val Gln Gly His Ile Met Gly Leu Phe Ala
                    70
Leu Ile Gly Phe Gln Met Cys Met Ala Lys Arg Glu Met Trp Ala
<210> 1215
<211> 365
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1215
Xaa His Gly Ile Gly Val Thr Ala Thr Asn Phe Thr Thr His Asn Ile
                  5
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Pro Gln Thr Phe Thr Thr Ala Ile Arg Cys Thr Lys Cys Gly Lys Gly

25

Val	Asp	Asn 35	Met	Pro	Glu	Leu	His 40		His	Ile	Leu	Ala 45	Cys	Ala	Ser
Ala	ser 50	Asp	Lys	Lys	Arg	Tyr 55		Pro	Lys	Lys	Asn 60	Pro	val	Pro	Leu
Lуs 65	Gln	Thr	Val	Gln	Pro 70	Lys	Asn	Gly	Val	Val 75	Val	Leu	Asp	Asn	Ser 80
Gly	Lys	Asn	Ala	Phe 85	Arg	Arg	Met	Gly	Gln 90	Pro	Lys	Arg	Leu	Asn 95	Phe
Ser	Val	Glu	Leu 100	Ser	Lys	Met	Ser	Ser 105	Asn	Lys	Leu	Lys	Leu 110	Asn	Ala
Leu	Lys	Lys 115	Lys	Asn	Gln	Leu	Val 120	Gln	Lys	Ala	Ile	Leu 125	Gln	Lys	Asn
Lys	ser 130	Ala	Lys	Gln	Lys	Ala 135	Asp	Leu	Lys	Asn	Ala 140	Cys	Glu	Ser	Ser
ser 145	His	Ile	Суз	Pro	Tyr 150	Cys	Asn	Arg	Glu	Phe 155	Thr	Tyr	Ile	Gly	Ser 160
Leu	Asn	Lys	His	Ala 165	Ala	Phe	Ser	Cys	Pro 170	Lys	Lys	Pro	Leu	ser 175	Pro
Pro	Lys	Lys	Lys 180	Val	Ser	His	Ser	Ser 185	Lys	Lys	Gly	Gly	His 190	Ser	Ser
Pro	Ala	ser 195	ser	Asp	Lys	Asn	ser 200	Asn	Ser	Asn	His	Arg 205	Arg	Arg	Thr
Ala	Asp 210	Ala	Glu	Ile	Lys	Met 215	Gln	ser	Met	Gln	Thr 220	Pro	Leu	Gly	Lys
Thr 225	Arg	Ala	Arg	Ser	ser 230	Gly	Pro	Thr	Gln	Val 235	Pro	Leu	Pro	Ser	Ser 240
Ser	Phe	Arg	Ser	Lys 245	Gln	Asn	Val	Lys	Phe 250	Ala	Ala	ser	Val	Lys 255	Ser
Lys	Lys	Pro	Ser 260	ser	Ser	Ser	Leu	Arg 265	Asn	Ser	ser	Pro	Ile 270	Arg	Met
Ala	Lys	Ile 275	Thr	His	Val	Glu	Gly 280	Lys	Lys	Pro	Lys	Ala 285	Val	Ala	Lys
Asn	His 290	Ser	Ala	Gln	Leu	Ser 295	Ser	Lys	Thr	Ser	Arg 300	Ser	Leu	His	Val

Arq Val Gln Lys Ser Lys Ala Val Leu Gln Ser Lys Ser Thr Leu Ala 305 310 315 Ser Lys Lys Arg Thr Asp Arg Phe Asn Ile Lys Ser Arg Glu Arg Ser 330 Gly Gly Pro Val Thr Arg Ser Leu Gln Leu Ala Ala Ala Ala Asp Leu 340 345 Ser Glu Asn Lys Arg Glu Asp Gly Ser Ala Ser Arg Ser 360 <210> 1216 <211> 558 <212> PRT <213> Homo sapiens <400> 1216 Ala His Ala Ser Ala His Ala Ala Thr Pro Arg Arg Leu Trp Ala Leu 5 10 Ser Ile Val Ser Phe Ser Ser Ala Gly Ala Ala Met Ala Ala Val Lys Thr Leu Asn Pro Lys Ala Glu Val Ala Arg Ala Gln Ala Ala Leu Ala 40 Val Asn Ile Ser Ala Ala Arg Gly Leu Gln Asp Val Leu Arg Thr Asn 50 Leu Gly Pro Lys Gly Thr Met Lys Met Leu Val Ser Gly Ala Gly Asp 65 Ile Lys Leu Thr Lys Asp Gly Asn Val Leu Leu His Glu Met Gln Ile Gln His Pro Thr Ala Ser Leu Ile Ala Lys Val Ala Thr Ala Gln Asp 100 105 110 Asp Ile Thr Gly Asp Gly Thr Thr Ser Asn Val Leu Ile Ile Gly Glu Leu Leu Lys Gln Ala Asp Leu Tyr Ile Ser Glu Gly Leu His Pro Arg 135

Ile Ile Thr Glu Gly Phe Glu Ala Ala Lys Glu Lys Ala Leu Gln Phe

Leu Glu Glu Val Lys Val Ser Arq Glu Met Asp Arq Glu Thr Leu Ile

155

150

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		165				170					175	
Asp Val	Ala Arg 180		Leu	Arg	Thr 185	Lys	Val	His	Ala	Glu 190	Leu	Ala
Asp Val	Leu Thr 195	Glu Ala		Val 200	Asp	Ser	Ile	Leu	Ala 205	Ile	Lys	Lys
Gln Asp 210	Glu Pro	Ile Asp	Leu 215	Phe	Met	Ile	Glu	Ile 220	Met	Glu	Met	Lys
His Lys 225	Ser Glu	Thr Asp 230		Ser	Leu	Ile	Arg 235	Gly	Leu	Val	Leu	Asp 240
His Gly	Ala Arg	His Pro 245	Asp	Met	Lys	Lys 250	Arg	Val	Glu	Asp	Ala 255	Tyr
Ile Leu	Thr Cys 260		Ser	Leu	Glu 265	Tyr	Glu	Lys	Thr	Glu 270	Val	Asn
Ser Gly	Phe Phe 275	Tyr Lys		Ala 280	Glu	Glu	Arg	Glu	Lys 285	Leu	Val	Lys
Ala Glu 290	Arg Lys	Phe Ile	Glu 295	Asp	Arg	Val	Lys	Lys 300	Ile	Ile	Glu	Leu
Lys Arg 305	Lys Val	Cys Gly 310	Asp	Ser	Asp	Lys	Gly 315	Phe	Val	Val	Ile	Asn 320
Gln Lys	Gly Ile	Asp Pro 325	Phe	Ser		Asp 330	Ala	Leu	Ser	Lys	G1u 335	Gly
Ile Val	Ala Leu 340	Arg Arg	Ala :		Arg 345	Arg	Asn	Met	Glu	Arg 350	Leu	Thr
Leu Ala	Cys Gly 355	Gly Val		Leu 360	Asn	ser	Phe	Asp	Asp 365	Leu	Ser	Pro
Asp Cys	Leu Gly	His Ala	Gly 1 375	Leu	Val	Tyr	Glu	Tyr 380	Thr	Leu	Gly	Glu
Glu Lys 385	Phe Thr	Phe Ile 390	Glu 1	Lys	Cys	Asn	Asn 395	Pro	Arg	Ser	Val	Thr 400
Leu Leu	Ile Lys	Gly Pro 405	Asn 1	Lys		Thr 410	Leu	Thr	Gln	Ile	Lys 415	Asp
Ala Val	Arg Asp 420	Gly Leu	Arg /		Val 425	Lys	Asn	Ala	Ile	Asp 430	Asp	Gly
Cys Val	Val Pro	Gly Ala	Gly !	Ala '	Val	Glu	Val	Ala	Met	Ala	Glu	Ala

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435 440 445

Leu Ile Lys His Lys Pro Ser Val Lys Gly Arg Ala Gln Leu Gly Val 450 455

Gln Ala Phe Ala Asp Ala Leu Leu Ile Ile Pro Lys Val Leu Ala Gln 470 475

Asn Ser Gly Phe Asp Leu Gln Glu Thr Leu Val Lys Ile Gln Ala Glu 485

His Ser Glu Ser Gly Gln Leu Val Gly Val Asp Leu Asn Thr Gly Glu 500 505 510

Pro Met Val Ala Ala Glu Val Gly Val Trp Asp Asn Tyr Cys Val Lys 520

Lys Gln Leu Leu His Ser Cys Thr Val Ile Ala Thr Asn Ile Leu Leu 535

Val Asp Glu Ile Met Arg Ala Gly Met Ser Ser Leu Lys Gly 545 550 555

<210> 1217

<211> 226

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Gln Phe Ala Ala Cys Leu Val Leu Thr Asp Phe Gly Ile Ala Val Phe
Glu Ile Pro His Gln Glu Ser Arg Gly Ser Ser Gln His Ile Leu Ser
         35
                             40
                                                 45
Ser Leu Arg Phe Val Phe Cys Phe Pro His Gly Asp Leu Thr Glu Phe
                         55
Gly Phe Leu Met Pro Glu Leu Cys Leu Val Leu Lys Val Arg His Ser
Glu Asn Thr Leu Phe Ile Ile Ser Asp Ala Ala Asn Leu His Glu Phe
                                     90
His Xaa Asp Leu Arg Ser Cys Phe Ala Pro Gln His Met Ala Met Leu
           100
                               105
                                                   110
Cys Ser Pro Ile Leu Tyr Gly Ser His Thr Ser Leu Gln Glu Phe Leu
                            120
Arg Gln Leu Leu Thr Phe Tyr Lys Val Ala Gly Gly Cys Gln Glu Arg
   130
                       135
                                           140
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Xaa Xaa Gly Cys Phe Pro Val Tyr Leu Val Tyr Ser Asp Lys Arg Met 145 150 155 Val Gln Thr Ala Ala Gly Asp Tyr Ser Gly Asn Ile Glu Trp Pro Ala Ala His Ser Val Gln Pro Cys Gly Xaa Pro Ala Ala Arg Pro Leu Xaa 180 185 Pro Ser Ser Pro Pro Pro Xaa Pro Thr Gly Cys Cys Ser Xaa Pro Ser 200 Thr Gln Ser Xaa Gln Ser Arg Leu Gln Xaa His Ala Gln Thr Val Glu 210 215 220 Pro Lys 225 <210> 1218 <211> 255 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1218 Cys Xaa Leu Pro Gly Cys Glu Ala His Ile Ile Pro Phe Ile Leu Asp Glu Ile Gly Ala Asp Ile Glu Asp Arg His Ile Val Val Ser Cys Ala 25 Ala Gly Val Thr Ile Ser Ser Ile Glu Lys Lys Leu Ser Ala Phe Arg 35 Pro Ala Pro Arg Val Ile Arg Cys Met Thr Asn Thr Pro Val Val Val Arg Glu Gly Ala Thr Val Tyr Ala Thr Gly Thr His Ala Gln Val Glu Asp Gly Arg Leu Met Glu Gln Leu Leu Ser Ser Val Gly Phe Cys Thr

90

Glu Val Glu Glu Asp Leu Ile Asp Ala Val Thr Gly Leu Ser Gly Ser

95

100 105 110 Gly Pro Ala Tyr Ala Phe Thr Ala Leu Asp Ala Leu Ala Asp Gly Gly 120 Val Lys Met Gly Leu Pro Arg Arg Leu Ala Val Arg Leu Gly Ala Gln 135 Ala Leu Leu Gly Ala Ala Lys Met Leu Leu His Ser Glu Gln His Pro 145 150 155 Gly Gln Leu Lys Asp Asn Val Ser Ser Pro Gly Gly Ala Thr Ile His 165 170 Ala Leu His Val Leu Glu Ser Gly Gly Phe Arg Ser Leu Leu Ile Asn Ala Val Glu Ala Ser Cys Ile Arg Thr Arg Glu Leu Gln Ser Met Ala 200 Asp Gln Glu Gln Val Ser Pro Ala Ala Ile Lys Lys Thr Ile Leu Asp 210 215 Lys Val Lys Leu Asp Ser Pro Ala Gly Thr Ala Leu Ser Pro Ser Gly 225 230 235 His Thr Lys Leu Leu Pro Arg Ser Leu Ala Pro Ala Gly Lys Asp 245 <210> 1219 <211> 590 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (17) <223> Xaa equals any of the naturally occurring L-amino acids

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<223> Xaa equals any of the naturally occurring L-amino acids

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                  5
                                     10
                                                          15
Xaa Cys Pro Pro Pro Ala Cys Arg Arg Ala Gly Arg Pro Thr Arg Pro
Ser Cys Ser Ala Val Thr Ala Pro Gly Ser Gly Gly Leu Val Ala Gly
                             40
Gly Pro Glu Ala Phe Ala Ala Phe Leu Arg Arg Glu Arg Leu Ala Arg
     50
                         55
                                             60
Phe Leu Asn Pro Asp Glu Val His Ala Ile Leu Arg Ala Ala Glu Arg
65
                     7.0
                                         75
Pro Gly Glu Glu Gly Ala Ala Ala Ala Ala Ala Ala Arg Thr Arg Ser
Ala Pro Arg Thr Thr Ala Leu Arg Ala Leu Leu Pro Arg Ala Val Gly
                                105
                                                    110
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Pro	Gly	Ala 115		Ala	Val	Gly	Ala 120		Leu	Ala	Arg	Leu 125	Leu	Хаа	Gly
Arg	Leu 130	Xaa	Arg	Arg	Xaa	Ala 135		Arg	Asp	Ala	Leu 140	Pro	Ala	Pro	Arg
Arg 145	Trp	Arg	Arg	Trp	Pro 150	Leu	Arg	Leu	Gln	Gly 155	Arg	Ser	Xaa	Pro	His 160
Xaa	Arg	Ser	Ala	Arg 165	Glu	Val	Ile	Ala	Val 170	Val	Met	Asp	Val	Phe 175	Thr
Asp	Ile	Asp	Ile 180		Arg	Asp	Leu	Gln 185	Glu	Ile	Cys	Arg	Lys 190	Gln	Gly
Val	Ala	Val 195	Tyr	Ile	Leu	Leu	Asp 200	Gln	Ala	Leu	Leu	Ser 205	Gln	Phe	Leu
Asp	Met 210	Cys	Met	Xaa	Leu	Lys 215	Xaa	His	Pro	Glu	Gln 220	Glu	Lys	Leu	Met
Thr 225	Val	Arg	Thr	Ile	Thr 230	Gly	Asn	Ile	Tyr	Tyr 235	Ala	Arg	Ser	Gly	Thr 240
Lys	Ile	Ile	Gly	Lys 245	Val	His	Glu	Lys	Phe 250	Thr	Leu	Ile	Asp	Gly 255	Ile
Arg	Val	Ala	Thr 260	Gly	Ser	Tyr	Ser	Phe 265	Thr	Trp	Thr	Asp	Gly 270	Lys	Leu
Asn	Ser	Ser 275	Asn	Leu	Val	Ile	Leu 280	Ser	Gly	Gln	Val	Val 285	Glu	His	Phe
Asp	Leu 290	Glu	Phe	Arg	Ile	Leu 295	Tyr	Ala	Gln	Ser	Lys 300	Pro	Ile	Ser	Pro
Lys 305	Leu	Leu	Ser	His	Phe 310	Gln	Ser	Ser	Asn	Lys 315	Phe	Asp	His	Leu	Thr 320
Asn	Arg	Lys	Pro	Gln 325	Ser	Lys	Glu	Leu	Thr 330	Leu	Gly	Asn	Leu	Leu 335	Arg
Met	Arg	Leu	Ala 340	Arg	Leu	Ser	Ser	Thr 345	Pro	Arg	Lys	Ala	Asp 350	Leu	Asp
Pro	Glu	Met 355	Pro	Ala	Glu	Gly	Lys 360	Ala	Glu	Arg	Lys	Pro 365	His	Asp	Cys
Glu	Ser 370	Ser	Thr	Val	Ser	Glu 375	Glu	Asp	Tyr	Phe	Ser 380	Ser	His	Arg	Asp

Glu Le	Gln	Ser	Arg	Lys 390	Ala	Ile	Asp	Ala	Ala 395	Thr	Gln	Thr	Glu	Pro 400
Gly Glu	ı Glu	Met	Pro 405	Gly	Leu	Ser	Val	Ser	Glu	Val	Gly	Thr	Gln 415	Thr
Ser Ile	Thr	Thr 420	Ala	Cys	Ala	Gly	Thr 425	Gln	Thr	Ala	Val	Ile 430	Thr	Arg
Ile Ala	Ser 435	Ser	Gln	Thr	Thr	11e 440	Trp	ser	Arg	ser	Thr 445	Thr	Thr	Gln
Thr Asp		Asp	Glu	Asn	Ile 455	Leu	Phe	Pro	Arg	Gly 460	Thr	Gln	Ser	Thr
Glu Gly 465	Ser	Pro	Val	ser 470	Lys	Met	Ser	Val	ser 475	Arg	Ser	Ser	Ser	Leu 480
Lys Sei	Ser	Ser	Ser 485	Val	Ser	Ser	Gln	Gly 490	ser	Val	Ala	Ser	Ser 495	Thr
Gly Ser	Pro	Ala 500	ser	Ile	Arg	Thr	Thr 505	Asp	Phe	His	Asn	Pro 510	Gly	Tyr
Pro Lys	Tyr 515	Leu	Gly	Thr	Pro	His 520	Leu	Glu	Leu	Tyr	Leu 525	ser	Asp	Ser
Leu Arc		Leu	Asn	Lys	Glu 535	Arg	Gln	Phe	His	Phe 540	Ala	Gly	Ile	Arg
Ser Arg 545	Leu	Asn	His	Met 550	Leu	Ala	Met	Leu	Ser 555	Arg	Arg	Thr	Leu	Phe 560
Thr Glu	Asn	His	Leu 565	Gly	Leu	His	Ser	Gly 570	Asn	Phe	Ser	Arg	Val 575	Asn
Leu Leu	Ala	Val 580	Arg	Asp	Val	Ala	Leu 585	туг	Pro	ser	Tyr	Gln 590		
<210> 1														
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		-												
<220>														
<221> S														
<222> (11							_

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1220 Val Glu Ile Ser Gly Pro Arg Pro Val Asp Trp Glu Val Arg Pro Pro Leu Gln Arg Leu Gly Leu Cys Phe Gly Ser Cys Arg Xaa Gln Gln Ser 25 Leu Pro Gly Arg Gly Ser Ala Asn Leu Leu Pro Ser Val Arg Ser Glu 3.5 40 Ser Ala Val Leu Ser Asp Cys Val Gly Gly Phe Pro Gly Arg Ser Ser 55 Val Arg Ala Trp Ile Ala Gly Pro Arg Cys Thr Pro Ala Ser Pro Thr Arg Val Leu Ser Leu Ser Trp Arg Leu Phe Asn Ser Ala Ser Leu Leu 85 Leu Leu Ala Thr Ser Thr Ser Gly Ser Glu Cys Arg Phe Pro Arg Ser 100 Pro Arg Ala Arg Glu Arg Gly Ile Pro Asp Cys Glu Arg Leu Leu Val 120 Arg Arg Ser Cys Trp Arg Ser Gly Asp Pro Arg Pro Ala Gly Pro Ala Gly His Ala Ala Gly Ala Phe Ser Thr Pro Gln Tyr Leu Gly Gly Thr 145 150 Ala Met Val Leu Leu His Val Lys Arg Gly Asp Glu Ser Gln Phe Leu 170 Leu Gln Ala Pro Gly Ser Thr Glu Leu Glu Glu Leu Thr Val Gln Val 185 Ala Arg Val Tyr Asn Gly Arg Leu Lys Val Gln Arg Leu Cys Ser Glu 195 Met Glu Glu Leu Ala Glu His Gly Ile Phe Leu Pro Pro Asn Met Gln 215 Gly Leu Thr Asp Asp Gln Ile Glu Glu Leu Lys Leu Lys Asp Glu Trp Gly Glu Lys Cys Val Pro Ser Gly Gly Ala Val Phe Lys Lys Asp Asp 245 250

Ile Gly Arg Arg Asn Gly Gln Ala Pro Asn Glu Lys Met Lys Gln Val

315

270

265

260

Leu Lys Lys Thr Ile Glu Glu Ala Lys Ala Ile Ile Ser Lys Lys Gln 280

Val Glu Ala Gly Val Cys Val Thr Met Glu Met Val Lys Asp Ala Leu

Asp Gln Leu Arg Gly Ala Val Met Ile Val Tyr Pro Met Gly Leu Pro

310

Pro Tyr Asp Pro Ile Arg Met Glu Phe Glu Asn Lys Glu Asp Leu Ser 325

Gly Thr Gln Ala Gly Leu Asn Val Ile Lys Glu Ala Glu Ala Gln Leu 345

Trp Trp Ala Ala Lys Glu Leu Arg Arg Thr Lys Lys Leu Ser Asp Tyr 360

Val Gly Lys Asn Glu Lys Thr Lys Ile Ile Ala Lys Ile Gln Gln Arg 375

Gly Gln Gly Ala Pro Ala Arg Glu Pro Ile Ile Ser Ser Glu Glu Gln 385 390 395

Lys Gln Leu Met Leu Tyr Tyr His Arg Arg Gln Glu Glu Leu Lys Arg 405 410

Leu Glu Glu Asn Asp Asp Asp Ala Tyr Leu Asn Ser Pro Trp Ala Asp 420 425

Asn Thr Ala Leu Lys Arg His Phe His Gly Val Lys Asp Ile Lys Trp 435 440

Arg Pro Arg 450

<210> 1221

<211> 85

<212> PRT

<213> Homo sapiens

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<400> 1221

Ala Glu Pro Gly Leu Ser Asn Pro Trp Gly Ala Gly Ser Xaa Ala Leu 1 5 10 15

Gly His Thr Trp Leu Pro Ala Pro Met Val Pro Val Pro Trp Asn Gly \$20\$

Asp Gly Gln Phe Trp Gly Gln Met Trp Cys Ser Gly Ile Gln Ser His

Phe Leu Pro Gly His Glu Leu Ser Gln Arg Pro Leu Gln Pro His Ser 50 55 60

Ala Pro Thr Tyr Leu Gly Thr Pro Ala Gly Ala Arg Glu Ala Pro Gly 65 70 75 80

Gly Leu Gly Pro Lys

<210> 1222

<211> 120 <212> PRT

<213> Homo sapiens

<400> 1222

Gly Leu Pro Glu His Val Val Pro Arg Leu Clu Gln Gly Val Glu Val 1 5 10 15

Ser Trp Gly Trp Pro Arg Pro Arg Leu Leu Ser Gln Gly Glu Ala Ala
20 25 30

Thr Asp Ser His Pro Thr Ala Leu Leu Lys Arg Met Phe Ala val Val 35 40 45

Leu Ala Gln Gly Cys Leu Gly Pro Ala Ser Cys Ala Ala Lys Val Gly 65 70 75 80

Gly Pro His Pro Lys Thr Asn Pro Gly Pro Arg Pro Leu Glu Ala Arg 85 90 95

Ala Ser Leu His Gly Leu Arg Gly Val Gly Ile Ser Pro Gln Ser Asp 100 105 110

Leu Ala Ser Glu Leu Phe Ser Arg 115 120

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Ser Arg Ser Pro Thr Pro Gly Ala Met Asp Pro Phe Thr Glu Lys Leu
             20
Leu Glu Arg Thr Arg Ala Arg Arg Glu Asn Leu Gln Arg Lys Met Ala
                            40
Glu Arg Pro Thr Ala Ala Pro Arg Ser Met Thr His Ala Lys Arg Ala
    50
                         55
Arg Gln Pro Leu Ser Glu Ala Ser Asn Gln Gln Pro Leu Ser Gly Gly
65
Glu Glu Lys Ser Cys Thr Lys Pro Ser Pro Ser Lys Lys Arg Cys Ser
                                    9.0
Asp Asn Thr Glu Val Glu Val Ser Asn Leu Glu Asn Lys Gln Pro Val
           100
                                105
Glu Ser Thr Ser Ala Lys Ser Cys Ser Pro Ser Pro Val Ser Pro Gln
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120

Val Gln Pro Gln Ala Ala Asp Thr Ile Ser Asp Ser Val Ala Val Pro 135 Ala Ser Leu Leu Gly Met Arg Arg Gly Leu Asn Ser Arg Leu Glu Ala 155 Thr Ala Ala Xaa Ser Val Lys Thr Arg Met Gln Lys Leu Ala Glu Gln 165 170 175 Arg Arg Arg Trp Asp Asn Asp Asp Met Thr Asp Asp Ile Pro Glu Ser 185 Ser Leu Phe Ser Pro Met Pro Ser Glu Glu Lys Xaa Ala Phe Pro Ser 200 Gln Thr Ser Xaa Phe Gln Xaa Ala Phe Gly Asn Phe Gln Leu Ala Lys 215 Lys Gly Ala Arg 225 <210> 1224 <211> 178 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (6) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (26) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (142) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1224 Val Asp Cys Gly Asn Xaa Ala Ala Lys Trp Phe Thr Asn Phe Leu Lys Thr Glu Ala Tyr Arq Leu Val Gln Phe Xaa Thr Asn Met Lys Gly Arg 20 25

Thr Ser Arg Lys Leu Leu Pro Thr Leu Asp Gln Asn Phe Gln Val Ala

35 40 45

Tyr Pro Asp Tyr Cys Pro Leu Leu Ile Met Thr Asp Ala Ser Leu Val 50 55 60

Asp Leu Asn Thr Arg Met Glu Lys Lys Met Lys Met Glu Asn Phe Arg 65 70 75 80

Pro Asn Ile Val Val Thr Gly Cys Asp Ala Phe Glu Glu Asp Thr Trp \$85\$ 90 95

Asp Glu Leu Leu Ile Gly Ser Val Glu Val Lys Lys Val Met Ala Cys $100 \ \ 105 \ \ \ 110$

Pro Arg Cys Ile Leu Thr Thr Val Asp Pro Asp Thr Gly Val Ile Asp 115 \$120\$

Arg Lys Gln Pro Leu Asp Thr Leu Lys Ser Tyr Arg Leu Xaa Asp Pro 130 $$130\,$

Ser Glu Arg Glu Leu Tyr Lys Leu Ser Pro Leu Phe Gly Ile Tyr Tyr 145 \$150\$

Ser Val Glu Lys Ile Gly Ser Leu Arg Val Gly Asp Pro Val Tyr Arg 165 170 175

Met Val

<210> 1225

<211> 64

<212> PRT

<213> Homo sapiens

<400> 1225

Arg Asn Ile Trp Lys Arg Gln Lys Thr Lys Lys Glu Glu Lys Arg Ser $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Leu Asp Thr Leu Leu Lys Tyr Asn His Ile Asn Ile Leu Ser Tyr 20 25 30

Phe Leu Pro Ala Phe Leu Gly Gln Ile Leu Val Gly Phe Tyr Ile Val 35 40 45

Glu Ile Val Leu Phe Ile Gln Phe Tyr Thr Leu Phe His Leu Thr Leu 50 60

<210> 1226

<211> 33

<212> PRT

<213> Homo sapiens

<400> 1226

Lys Gly Asn Lys Ser Trp Ser Ser Thr Ala Val Ala Ala Ala Leu Glu 1 5 10 15

Leu Val Asp Pro Pro Gly Cys Arg Asn Val Thr Ile Ser Thr Cys Cys \$20\$

Pro

<210> 1227

<211> 402

<212> PRT

<213> Homo sapiens

<400> 1227

Asp Gln Ala Gly Pro Ala Ser Ala Glu Gln Leu His Ala Gly Pro Ala 1 5 10 15

Thr Glu Glu Pro Gly Pro Cys Leu Ser Gln Gln Leu His Ser Ala Ser 20 25 30

Ala Glu Asp Thr Pro Val Val Gln Leu Ala Ala Glu Thr Pro Thr Ala 35 40 45

Ser Cys Pro Gly Ser Glu Pro Val Pro Thr His Gln Gln Gly Gln Pro 65 70 75 80

Ala Leu Glu Leu Lys Glu Glu Ser Phe Arg Asp Pro Ala Glu Val Leu 85 90 95

Gly Thr Gly Ala Glu Val Asp Tyr Leu Glu Gln Phe Gly Thr Ser Ser 100 105 110

Phe Lys Glu Ser Ala Leu Arg Lys Gln Ser Leu Tyr Leu Lys Phe Asp 115 120 125

Pro Leu Leu Arg Asp Ser Pro Gly Arg Pro Val Pro Val Ala Thr Glu

130 135 140 Thr Ser Ser Met His Gly Ala Asn Glu Thr Pro Ser Gly Arg Pro Arg 150 155 Glu Ala Lys Leu Val Glu Phe Asp Phe Leu Gly Ala Leu Asp Ile Pro 170 Val Pro Gly Pro Pro Pro Gly Val Pro Ala Pro Gly Gly Pro Pro Leu Ser Thr Gly Pro Ile Val Asp Leu Leu Gln Tyr Ser Gln Lys Asp Leu 195 200 Asp Ala Val Val Lys Ala Thr Gln Glu Glu Asn Arg Glu Leu Arg Ser 215 Arg Cys Glu Glu Leu His Gly Lys Asn Leu Glu Leu Gly Lys Ile Met 225 230 235 Asp Arg Phe Glu Glu Val Val Tyr Gln Ala Met Glu Glu Val Gln Lys 245 250 Gln Lys Glu Leu Ser Lys Ala Glu Ile Gln Lys Val Leu Lys Glu Lys 260 265 Asp Gln Leu Thr Thr Asp Leu Asn Ser Met Glu Lys Ser Phe Ser Asp 280 Leu Phe Lys Arg Phe Glu Lys Gln Lys Glu Val Ile Glu Gly Tyr Arg 290 295 Lys Asn Glu Glu Ser Leu Lys Lys Cys Val Glu Asp Tyr Leu Ala Arg 310 Ile Thr Gln Glu Gly Gln Arg Tyr Gln Ala Leu Lys Ala His Ala Glu Glu Lys Leu Gln Leu Ala Asn Glu Glu Ile Ala Gln Val Arg Ser Lys 340 345 350 Ala Gln Ala Glu Ala Leu Ala Leu Gln Ala Ser Leu Arg Lys Glu Gln 355 Met Arg Ile Gln Ser Leu Glu Lys Thr Val Glu Gln Lys Thr Lys Glu 375 Asn Glu Glu Leu Thr Arg Ile Cys Asp Asp Leu Ile Ser Lys Met Glu 390 395

Lys Ile

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Pro Pro Pro Ala Arg Val Arg Val Ala Val Arg Leu Arg Pro Phe Val
Asp Gly Thr Ala Gly Ala Ser Asp Pro Pro Cys Val Arg Gly Met Asp
        35
                             40
                                                 45
Ser Cys Ser Leu Glu Ile Ala Asn Trp Arg Asn His Gln Glu Thr Leu
     50
Lys Tyr Gln Phe Asp Ala Phe Tyr Gly Glu Xaa Ser Thr Gln Gln Asp
Ile Tyr Ala Gly Ser Val Gln Pro Ile Leu Arg His Leu Leu Glu Gly
                 85
Gln Asn Ala Ser Val Leu Ala Tyr Gly Pro Thr Gly Ala Gly Lys Thr
           100
                               105
His Thr Met Leu Gly Ser Pro Glu Gln Pro Gly Val Ile Pro Arg Ala
        115
Leu Met Asp Leu Leu Gln Leu Thr Arg Glu Glu Gly Ala Glu Gly Arg
                      135
                                           140
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Pro 145	Trp	Xaa	Leu	Ser	Val 150		Met	Ser	Tyr	155	Glu	Ile	Tyr	Gln	Glu 160
Lys	Val	Leu	Asp	Leu 165	Leu	Asp	Pro	Ala	Ser 170		Asp	Leu	Val	11e 175	Arg
Glu	Asp	Cys	Arg 180	Gly	Asn	Ile	Leu	Ile 185	Pro	Gly	Leu	Ser	Gln 190	Lys	Pro
Ile	Ser	Ser 195	Phe	Ala	Asp	Phe	Glu 200	Arg	His	Phe	Leu	Pro 205	Ala	Ser	Arg
Asn	Arg 210	Thr	Val	Gly	Ala	Thr 215	Arg	Leu	Asn	Gln	Arg 220	Ser	Ser	Arg	Ser
His 225	Ala	Val	Leu	Leu	Val 230	Lys	Val	Asp	Gln	Arg 235	Glu	Arg	Leu	Ala	Pro 240
Phe	Arg	Gln	Arg	Glu 245	Gly	Lys	Leu	туг	Leu 250	Ile	Asp	Leu	Ala	Gly 255	ser
Glu	Asp	Asn	Arg 260	Arg	Thr	Gly	Asn	Lys 265	Gly	Leu	Arg	Leu	Lys 270	Glu	Ser
Gly	Ala	11e 275	Asn	Thr	Ser	Leu	Phe 280	Val	Leu	Gly	Lys	Val 285	Val	Asp	Ala
Leu	Asn 290	Gln	Gly	Leu	Pro	Arg 295	Val	Pro	Tyr	Arg	Asp 300	Ser	Lys	Leu	Thr
Arg 305	Leu	Leu	Gln	Asp	ser 310	Leu	Gly	Gly	ser	Ala 315	His	Ser	Ile	Leu	Ile 320
Ala	Asn	Ile	Ala	Pro 325	Glu	Arg	Arg	Phe	Tyr 330	Leu	Asp	Thr	Val	Ser 335	Ala
Leu	Asn	Phe	Ala 340	Ala	Arg	Ser	Lys	Glu 345	Val	Ile	Asn	Arg	Pro 350	Phe	Thr
Asn	Glu	Ser 355	Leu	Gln	Pro	His	Ala 360	Leu	Gly	Pro	Val	Lys 365	Leu	Ser	Gln
Lys	Glu 370	Leu	Leu	Gly	Pro	Pro 375	Glu	Ala	Lys	Arg	Ala 380	Arg	Gly	Pro	Glu
Glu 385	Glu	Glu	Ile	Gly	ser 390	Pro	Glu	Pro	Met	Ala 395	Ala	Pro	Ala	Ser	Ala 400
Ser	Gln	Lys	Leu	Ser 405	Pro	Leu	Gln	Lys	Leu 410	Ser	Ser	Met	Asp	Pro 415	Ala

Met Leu Glu Arg Leu Leu Gln Leu Gly Pro Ser Ala Cys Leu Pro Gly
420 425 430

Glu Pro Xaa Gly Pro Ser Val Glu Tyr Pro Lys Ala Arg Ala Asp Gly $435 \ \ \, 440 \ \ \, 445$

Ala Asn Glu Asp Ser Arg Arg Glu Gly Pro Arg Asp 450 455 460

<210> 1229

<211> 239

<212> PRT

<213> Homo sapiens

<400> 1229

Ala Arg Gly Arg Leu Ala Phe Pro Cys Gly Arg Pro Asp Tyr Trp Ala 1 51015

Leu Ala Arg Arg Thr Ile Gly Thr Gly Leu Glu Arg Lys Ala Leu Gly \$20\$

Leu Pro Gly Ser Ser Glu Arg Pro Thr Ser Val Ser Ser Tyr Gln Gly $35 \hspace{1cm} 40 \hspace{1cm} 45$

Glu Glu Glu Thr Arg Val Met Phe Glu Lys Ile Ala Lys Tyr Ile Gly 65 70 75 80

Glu Asn Leu Gln Leu Leu Val Asp Arg Pro Asp Gly Thr Tyr Cys Phe 85 90 95

Arg Leu His Asn Asp Arg Val Tyr Tyr Val Ser Glu Lys Ile Met Lys 100 105 110

Leu Ala Ala Asn Ile Ser Gly Asp Lys Leu Val Ser Leu Gly Thr Cys 115 120 125

Phe Gly Lys Phe Thr Lys Thr His Lys Phe Arg Leu His Val Thr Ala 130 135 140

Leu Asp Tyr Leu Ala Pro Tyr Ala Lys Tyr Lys Val Trp Ile Lys Pro 145 150 155 160

Gly Ala Glu Gln Ser Phe Leu Tyr Gly Asn His Val Leu Lys Ser Gly 165 170 175 Leu Gly Arg Ile Thr Glu Asn Thr Ser Gln Tyr Gln Gly Val Val 180 185 190

Tyr Ser Met Ala Asp Ile Pro Leu Gly Phe Gly Val Ala Ala Lys Ser 195 200 205

Thr Gln Asp Cys Arg Lys Val Asp Pro Met Ala Ile Val Val Phe His 210 215

Gln Ala Asp Ile Glu Tyr Val Arg His Glu Glu Thr Leu Thr 225 230 235

<210> 1230

<211> 276

<212> PRT <213> Homo sapiens

<220> <221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (253)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1230

Ser Ala Val Val Ser Gly Cys Arg Val Arg Ser Cys Thr Ser Phe Ser $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Asp Glu Pro Met Thr Gly Trp Met Ala Ala Ala Val Val Thr Leu Met \$20\$ \$25\$ \$30\$

Ile Arg Met Cys Phe Ser Val Tyr Thr Met Leu Ser Glu Ser Cys Gln $35 \hspace{1cm} 40 \hspace{1cm} 45$

Arg Met Val Ile Val Gly Tyr Gly Xaa Leu Leu Arg Arg Gln Ala Glu 50 60

Leu Asp Gly Met Pro Ala Ile Asn Ala Lys Arg Val Tyr Arg Ile Met 65 70 75 80

Arg Gln Asn Ala Leu Leu Leu Glu Arg Lys Pro Ala Val Pro Pro Ser 85 90 95

Lys Arg Ala His Thr Gly Arg Val Ala Val Lys Glu Ser Asn Gln Arg 100 105 110 Trp Cys Ser Asp Gly Phe Glu Phe Cys Cys Asp Asn Gly Glu Arg Leu 115 120 125

Arg Val Thr Phe Ala Leu Asp Cys Cys Asp Arg Glu Ala Leu His Trp 130 135

Ala Val Thr Thr Gly Gly Phe Asn Ser Glu Thr Val Gln Asp Val Met 145 \$150\$

Leu Gly Ala Val Glu Arg Arg Phe Gly Asn Asp Leu Pro Ser Ser Pro 165 170 175

Val Glu Trp Leu Thr Asp Asn Gly Ser Cys Tyr Arg Ala Asn Glu Thr \$180\$

Arg Gln Phe Ala Arg Met Leu Gly Leu Glu Pro Lys Asn Thr Ala Val $195 \hspace{1cm} 200 \hspace{1cm} 205 \hspace{1cm}$

Arg Ser Pro Glu Ser Asn Gly Ile Ala Glu Ser Phe Val Lys Thr Ile 210 $$\rm 220$$

Lys Arg Asp Tyr Ile Ser Ile Met Pro Lys Pro Asp Gly Leu Thr Ala 225 230 235 240

Ala Lys Asn Leu Ala Glu Ala Phe Glu His Tyr Asn Xaa Trp His Pro $245 \hspace{1.5cm} 255 \hspace{1.5cm}$

His Ser Ala Leu Gly Tyr Arg Ser Pro Arg Glu Tyr Leu Arg His Gly $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$

Leu Val Met Gly 275

<210> 1231

<211> 296

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1231

Lys Thr Ile His Leu Xaa Thr Phe Ile Val Leu Ile Arg Arg Leu Asp

Cys Asn Phe Asp Ile Lys Val Leu Asn Ala Gln Arg Ala Gly Tyr Lys
20 25 30

Ala Ala Ile Val His Asn Val Asp Ser Asp Asp Leu Ile Ser Met Gly Ser Asn Asp Ile Glu Val Leu Lys Lys Ile Asp Ile Pro Ser Val Phe 50 55 Ile Gly Glu Ser Ser Ala Asn Ser Leu Lvs Asp Glu Phe Thr Tyr Glu Lys Gly Gly His Leu Ile Leu Val Pro Glu Phe Ser Leu Pro Leu Glu 85 90 Tyr Tyr Leu Ile Pro Phe Leu Ile Ile Val Gly Ile Cys Leu Ile Leu Ile Val Ile Phe Met Ile Thr Lys Phe Val Gln Asp Arg His Arg Ala 115 120 Arg Arg Asn Arg Leu Arg Lys Asp Gln Leu Lys Lys Leu Pro Val His 135 Lys Phe Lys Lys Gly Asp Glu Tyr Asp Val Cys Ala Ile Cys Leu Asp 145 150 155 Glu Tyr Glu Asp Gly Asp Lys Leu Arg Ile Leu Pro Cys Ser His Ala 165 Tyr His Cys Lys Cys Val Asp Pro Trp Leu Thr Lys Thr Lys Lys Thr 185 Cys Pro Val Cys Lys Gln Lys Val Val Pro Ser Gln Glv Asp Ser Asp 195 200 Ser Asp Thr Asp Ser Ser Gln Glu Glu Asn Glu Val Thr Glu His Thr 210 215 220 Pro Leu Leu Arg Pro Leu Ala Ser Val Ser Ala Gln Ser Phe Gly Ala Leu Ser Glu Ser Arg Ser His Gln Asn Met Thr Glu Ser Ser Asp Tvr 245 250 Glu Glu Asp Asp Asn Glu Asp Thr Asp Ser Ser Asp Ala Glu Asn Glu 260 Ile Asn Glu His Asp Val Val Val Gln Leu Gln Pro Asn Gly Glu Arg

280

285

Asp Tyr Asn Ile Ala Asn Thr Val 290 295

```
<210> 1232
<211> 69
<212> PRT
<213> Homo sapiens
<400> 1232
Asn Gln His Lys Glu Tyr Asp Lys Thr Pro Val Gly Asn Pro Glu Cys
Ser Gly Pro Ser Cys Gly Leu Phe Tyr Gly Phe Met Lys Gly Pro Cys
Pro His Gly Gly Asp His Gly Leu Ala Cys Gly Val Leu Gly Asp Gly
         35
Cys Leu Leu Ser Ser Ser Pro His Pro Ala Ser Cys Trp His Leu Gly
                        55
                                           6.0
Glu Glu Ser Ser Lvs
65
<210> 1233
<211> 423
<212> PRT
<213> Homo sapiens
<400> 1233
Leu Tyr Arg Gln Asp Tyr Asn Pro Lys Pro Lys Pro Ser Asn Glu Ile
Thr Arg Glu Tyr Ile Pro Lys Ile Gly Met Thr Thr Tyr Lys Ile Val
Pro Pro Lys Ser Leu Glu Ile Ser Lys Asp Trp Gln Ser Glu Thr Ile
        35
                                                45
                            40
Glu Tyr Lys Asp Asp Gln Asp Met His Ala Leu Gly Lys Lys His Thr
His Glu Asn Val Lys Glu Thr Ala Ile Gln Thr Glu Asp Ser Ala Ile
Ser Glu Ser Pro Glu Glu Pro Leu Pro Asn Leu Lys Pro Lys Pro Asn
                                   90
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Leu Arg Thr Glu His Gln Val Pro Ser Ser Val Ser Ser Pro Asp Asp

Ala Met Val Ser Pro Leu Lys Pro Ala Pro Lys Met Thr Arg Asp Thr Gly Thr Ala Pro Phe Ala Pro Asn Leu Glu Glu Ile Asn Asn Ile Leu Glu Ser Lys Phe Lys Ser Arg Ala Ser Asn Ala Gln Ala Lys Pro Ser Ser Phe Phe Leu Gln Met Gln Lys Arg Val Ser Gly His Tyr Val Thr Ser Ala Ala Ala Lys Ser Val His Ala Ala Pro Asn Pro Ala Pro Lys Glu Leu Thr Asn Lvs Glu Ala Glu Arg Asp Met Leu Pro Ser Pro Glu Gln Thr Leu Ser Pro Leu Ser Lys Met Pro His Ser Val Pro Gln Pro Leu Val Glu Lys Thr Asp Asp Asp Val Ile Gly Gln Ala Pro Ala Glu Ala Ser Pro Pro Pro Ile Ala Pro Lys Pro Val Thr Ile Pro Ala Ser Gln Val Ser Thr Gln Asn Leu Lys Thr Leu Lys Thr Phe Gly Ala Pro Arg Pro Tyr Ser Ser Ser Gly Pro Ser Pro Phe Ala Leu Ala Val Val Lys Arg Ser Gln Ser Phe Ser Lys Glu Arg Thr Glu Ser Pro Ser Ala Ser Ala Leu Val Gln Pro Pro Ala Asn Thr Glu Glu Gly Lys Thr His Ser Val Asn Lys Phe Val Asp Ile Pro Gln Leu Gly Val Ser Asp Lys Glu Asn Asn Ser Ala His Asn Glu Gln Asn Ser Gln Ile Pro Thr Pro Thr Asp Gly Pro Ser Phe Thr Val Met Arg Gln Ser Ser Leu Thr Phe

Gln Ser Ser Asp Pro Glu Gln Met Arg Gln Ser Leu Leu Thr Ala Ile

370 375 380

Arg Ser Gly Glu Ala Ala Ala Lys Leu Lys Arg Val Thr Ile Pro Ser 385 390 395 400

Asn Thr Ile Ser Val Asn Gly Arg Ser Arg Leu Ser His Ser Met Ser 405 410 415

Pro Asp Ala Gln Asp Gly His 420

<210> 1234

<211> 231

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (225)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1234

Thr Ala Lys Lys Asn His Lys Lys Leu Thr Ile Asn Pro Cys Glu Ile 1 5 10 15

Ser Gly Cys Pro Lys Pro Thr Gln Ile Ile Ala Gly Asp Arg Pro Asp \$20\$

Asn His Trp Leu His Tyr Asp Ser Lys Thr Ile Pro Arg Thr Lys Lys \$35\$ \$40\$ \$45\$

Glu Trp Glu Ser Ser Cys Phe Val Glu Lys Thr His Trp Gly Tyr Tyr 50 55 60

Thr Trp Pro Lys Asn Met Val Val Tyr Ala Gly Val Glu Glu Gln Pro 65 70 75 80

Lys Leu Gly Arg Ser Arg Glu Asp Met Thr Glu Ala Glu Gln Ile Ile 85 90 95

Phe Asp His Phe Ser Asp Pro Lys Phe Val Glu Gln Leu Ile Thr Phe $100 ext{ } 105 ext{ } 110$

Leu Ser Leu Glu Asp Arg Lys Gly Lys Asp Lys Phe Asn Pro Arg Arg 115 120 125

Phe Cys Leu Phe Lys Gly Ile Phe Arg Asn Phe Asp Asp Ala Phe Leu 130 135 140

Pro Val Leu Lys Pro His Leu Glu His Leu Val Ala Asp Ser His Glu 145 150 155 Ser Thr Gln Arg Cys Val Ala Glu Ile Ile Ala Gly Leu Ile Arg Gly 165 170 Ser Lys His Trp Thr Phe Glu Lys Val Glu Lys Leu Trp Glu Leu Leu 180 185 190 Cys Pro Leu Leu Arg Thr Ala Leu Ser Asn Ile Thr Val Glu Thr Tyr 200 Asn Asp Trp Gly Ala Cys Ile Ala Thr Ser Cys Glu Ser Arg Asp Pro 215 220 Xaa Glu Thr Ser Leu Ala Phe 225 230 <210> 1235 <211> 302 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (2) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (226) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1235 Arg Xaa Gly Ile Pro Gly Ser Thr His Ala Ser Gly Ala Val Ala Leu 1 5 Tyr Phe Ile Asp Lys Leu Ala Leu Arg Ala Gly Asn Glu Lys Glu Asp 20 Gly Glu Ala Ala Asp Thr Val Gly Cys Cys Ser Leu Arg Val Glu His 40 Val Gln Leu His Pro Glu Ala Asp Gly Cys Gln His Val Val Glu Phe 50 5.5 60 Asp Phe Leu Gly Lys Asp Cys Ile Arg Tyr Tyr Asn Arg Val Pro Val 65 70 75

Glu Lys Pro Val Tyr Lys Asn Leu Gln Leu Phe Met Glu Asn Lys Asp $85 \hspace{1cm} 90 \hspace{1cm} 95$

Pro Arg Asp Asp Leu Phe Asp Arg Leu Thr Thr Thr Ser Leu Asn Lys \$100\$

His Leu Gln Glu Leu Met Asp Gly Leu Thr Ala Lys Val Phe Arg Thr

Tyr Asn Ala Ser Ile Thr Leu Gln Glu Gln Leu Arg Ala Leu Thr Arg 130 $$135\$

Ala Glu Asp Ser Ile Ala Ala Lys Ile Leu Ser Tyr Asn Arg Ala Asn 145 \$150\$ 155 160

Arg Val Val Ala Ile Leu Cys Asn His Gln Arg Ala Thr Pro Ser Thr 165 170 175

Phe Glu Lys Ser Met Gln Asn Leu Gln Thr Lys Ile Gln Ala Lys Lys 180 185 190

Glu Gln Val Ala Glu Ala Arg Ala Glu Leu Arg Arg Ala Arg Ala Glu 195 200 205

His Lys Ala Gln Gly Asp Gly Lys Ser Arg Ser Val Leu Glu Lys Lys 210 220

Arg Xaa Leu Leu Glu Lys Leu Gln Glu Gln Leu Ala Gln Leu Ser Val 225 230 235 240

Gln Ala Thr Asp Lys Glu Glu Asn Lys Gln Val Ala Leu Gly Thr Ser \$245\$

Lys Leu Asn Tyr Leu Asp Pro Arg Ile Ser Ile Ala Trp Cys Lys Arg \$260\$ \$265\$ \$270\$

Phe Arg Val Pro Val Glu Lys Ile Tyr Ser Lys Thr Gln Arg Glu Arg 275 280 285

Phe Ala Trp Ala Leu Ala Met Ala Gly Glu Asp Phe Glu Phe 290 295 300

<210> 1236

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1236

Ala Val Leu Val Ser Leu Glu Tyr Leu Ser Asp Arg Ile Lys Leu Lys

10 15 1 Leu Ser Gly Lys Leu Pro Val Tyr Ile Leu His Leu Val Tyr Arg Leu 20 25 Phe Cys Leu Ala His Lys Ala Phe Tyr Tyr Leu Ser Leu Cys Gln His Leu Arg Ile Lys Asn Phe Pro Asp Ile Gln Ile Ser Asp Phe Asn 5.5 <210> 1237 <211> 239 <212> PRT <213> Homo sapiens <400> 1237 Val Tyr Leu Leu Gly Ser Trp Leu Arg Arg His Ser Ser Tyr Thr Glu Glu Met Gly Glu Glu Ala Asn Asp Asp Lys Lys Pro Thr Thr Lys Phe 25 Glu Leu Glu Arg Glu Thr Glu Leu Arg Phe Glu Val Glu Ala Ser Gln Ser Val Gln Leu Glu Leu Leu Thr Gly Met Ala Glu Ile Phe Gly Thr Glu Leu Thr Arg Asn Lys Lys Phe Thr Phe Asp Ala Gly Ala Lys Val 70 75 Ala Val Phe Thr Trp His Gly Cys Ser Val Gln Leu Ser Gly Arg Thr 85 90 Glu Val Ala Tyr Val Ser Lys Asp Thr Pro Met Leu Leu Tyr Leu Asn Thr His Thr Ala Leu Glu Gln Met Arg Arg Gln Ala Glu Lys Glu Glu 120 Glu Arg Gly Pro Arg Val Met Val Val Gly Pro Thr Asp Val Gly Lys 130 Ser Thr Val Cys Arg Leu Leu Leu Asn Tyr Ala Val Arg Leu Gly Arg

145

150

165

155

170

Arg Pro Thr Tyr Val Glu Leu Asp Val Gly Gln Gly Ser Val Ser Ile

Pro Gly Thr Met Gly Ala Leu Tyr Ile Glu Arg Pro Ala Asp Val Glu 180 185 190

Glu Gly Phe Ser Ile Gln Ala Pro Leu Val Tyr His Phe Gly Ser Thr

Thr Pro Gly Thr Asn Ile Lys Leu Tyr Asn Lys Ile Thr Ser Arg Leu 210 215 220

Ala Asp Val Phe Asn Gln Arg Cys Glu Val Asn Arg Arg His Leu 225 230 235

<210> 1238

<211> 315

<212> PRT

<213> Homo sapiens

<400> 1238

Leu Leu Thr Arg Asn Met Asp Arg Leu Leu Arg Leu Gly Gly Met 1 $$\rm 10$$

Pro Gly Leu Gly Gln Gly Pro Pro Thr Asp Ala Pro Ala Val Asp Thr 20 25 30

Ala Glu Glu Val Tyr Ile Ser Ser Leu Ala Leu Leu Lys Met Leu Lys 35 40 45

His Gly Arg Ala Gly Val Pro Met Glu Val Met Gly Leu Met Leu Gly 50 55

Glu Phe Val Asp Asp Tyr Thr Val Arg Val Ile Asp Val Phe Ala Met $\mathbf{65}$ 70 75 80

Pro Gln Ser Gly Thr Gly Val Ser Val Glu Ala Val Asp Pro Val Phe

Gln Ala Lys Met Leu Asp Met Leu Lys Gln Thr Gly Arg Pro Glu Met $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Val Val Gly Trp Tyr His Ser His Pro Gly Phe Gly Cys Trp Leu Ser 115 120 125

Gly Val Asp Ile Asn Thr Gln Gln Ser Phe Glu Ala Leu Ser Glu Arg 130 135 140

Ala Val Ala Val Val Val Asp Pro Ile Gln Ser Val Lys Gly Lys Val 145 \$150\$

His Glu Pro Arg Gln Thr Thr Ser Asn Leu Gly His Leu Asn Lys Pro 185 Ser Ile Gln Ala Leu Ile His Gly Leu Asn Arg His Tyr Tyr Ser Ile 195 200 205 Thr Ile Asn Tyr Arg Lys Asn Glu Leu Glu Gln Lys Met Leu Leu Asn 215 Leu His Lys Lys Ser Trp Met Glu Gly Leu Thr Leu Gln Asp Tyr Ser 230 235 Glu His Cys Lys His Asn Glu Ser Val Val Lys Glu Met Leu Glu Leu 245 250 255 Ala Lys Asn Tyr Asn Lys Ala Val Glu Glu Glu Asp Lys Met Thr Pro 260 265 Glu Gln Leu Ala Ile Lys Asn Val Gly Lys Gln Asp Pro Lys Arg His 280 Leu Glu Glu His Val Asp Val Leu Met Thr Ser Asn Ile Val Gln Cys 290 295 Leu Ala Ala Met Leu Asp Thr Val Val Phe Lys

Val Ile Asp Ala Phe Arg Leu Ile Asn Ala Asn Met Met Val Leu Gly

<210> 1239

<211> 283

<212> PRT

<213> Homo sapiens

<220>

305

<221> SITE

<222> (253)

<223> Xaa equals any of the naturally occurring L-amino acids

310

<220>

<221> SITE

<222> (259)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1239
Leu Arg Gly Ser Asp Ala Gly Ser Gly Asp Glu Val Ala Ala Gly Gly
1 5 10 15

Ser Arg Ala Val Ala Ala Ala Leu Pro Arg Ser Gly Arg Val Gly Ala Ser Gly Pro Ala Ser Ala Pro Leu His Pro Arg Leu Ala Glu Pro 40 Gly Phe Ser Ala Ala Ala Gly Leu Val Arg Arg Ser Gln Val Arg Gly 55 Val His Pro Leu Gly Arg Val Leu Gly Ala Arg Leu Gly Gln Arg Val Val Leu Val Ala Leu Ala Gly Arg Gly Ala Ala Ala Val Pro Ala Leu 90 His Ala Arg Gln Leu Pro Ala Arg Leu Gln Leu Arg Arg Leu Arg Thr 100 105 110 Ala Val His Cys Ala Leu Leu Pro Pro Gly Glu Trp Ala Asp Leu Phe 120 Gln Ala Ala Gly Ala Lys Tyr Val Val Leu Thr Thr Lys His His Glu 135 Gly Phe Thr Asn Trp Pro Ser Pro Val Ser Trp Asn Trp Asn Ser Lys 145 155 Asp Val Gly Pro His Arg Asp Leu Val Gly Glu Leu Gly Thr Ala Leu 165 170 Arg Lys Arg Asn Ile Arg Tyr Gly Leu Tyr His Ser Leu Leu Glu Trp 185 Phe His Pro Leu Tyr Leu Leu Asp Lys Lys Asn Gly Phe Lys Thr Gln 200 His Phe Val Ser Ala Lys Thr Met Pro Glu Leu Tyr Asp Leu Val Asn 210 215 Ser Tyr Lys Pro Asp Leu Ile Trp Ser Asp Gly Glu Trp Glu Cys Pro 230 235 Asp Thr Tyr Trp Asn Ser Thr Asn Phe Leu Ser Trp Xaa Tyr Asn Asp 250 Ser Pro Xaa Lys Val Ser Val Gly Ser Leu Arg Ala Arg Thr Leu Phe 260 Tyr Ser Thr Trp Glu Leu Ser Val Cys His Met

280

130

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<210> 1240
<211> 180
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (175)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1240
Thr Thr Ser Xaa Glu Arg Xaa Leu Thr Gly Pro Glu Pro Leu Arg Arg
Arg Arg Leu Cys Ser Arg Gln Leu Ala Pro Ala Ala Met Pro Thr Thr
             20
                                 25
Ile Glu Arg Glu Phe Glu Glu Leu Asp Thr Gln Arg Arg Trp Gln Pro
         35
                                                 45
Leu Tyr Leu Glu Ile Arg Asn Glu Ser His Asp Tyr Pro His Arg Val
Ala Lys Phe Pro Glu Asn Arg Asn Arg Asn Arg Tyr Arg Asp Val Ser
                     70
Pro Tyr Asp His Ser Arg Val Lys Leu Gln Asn Ala Glu Asn Asp Tyr
                 85
                                     90
                                                         95
Ile Asn Ala Ser Leu Val Asp Ile Glu Glu Ala Gln Arg Ser Tyr Ile
            100
Leu Thr Gln Gly Pro Leu Pro Asn Thr Cys Cys His Phe Trp Leu Met
                            120
Val Trp Gln Gln Lys Thr Lys Ala Val Val Met Leu Asn Arg Ile Val
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135

Glu Lys Glu Ser Ser Gly Glu Thr Glu Gln Tyr Leu Thr Phe Ile Ile

145 150 155 160

Leu Pro Gly Gln Asn Leu Glu Ser Leu Glu Ser Thr Ser Phe Xaa Ser 165 170 175

Gln Phe Leu Gly 180

<210> 1241

<211> 19 <212> PRT

<213> Homo sapiens

<400> 1241

Ser Arg Asp Gly Val Ser Pro His Trp Pro Gly Trp Ser Gln Thr Pro 1 5 10 15

Asp Leu Lys

<210> 1242 <211> 133 <212> PRT

<213> Homo sapiens

<400> 1242

Ala Phe Asp Leu Cys Tyr Leu Tyr Ser Trp Asp Leu Ile Arg Lys Met
1 5 10 15

Cys Phe Val Val Leu Asp Lys Leu Phe His Pro Leu Phe Pro Pro Gln 20 25 30

Asn Thr His Thr Glu Gln Thr Pro Phe His Lys Ser Pro His Ile His 35 40 45

Trp Gln Ser Pro Phe Ala Ser Trp Ser Pro Cys Val Pro Pro Lys Ser 50 55 60

Ile Met Phe Glu Ser Leu Trp Trp Met Leu Trp Gly Lys Val Met Ile 65 70 75 80

Tyr Thr Glu Ala Thr Ala Lys Ser Val Val Gln Pro Leu Ser Pro Val 85 90 95

Lys Tyr Cys Ile Thr Pro Phe Gly Thr Thr Glu Lys Thr Val Ala Phe

```
Leu Gln Tyr Ser Ser Leu Leu His His Phe Cys Ile Asn Val Glu Thr
        115
                           120
Lys His Gln Asn Leu
   130
<210> 1243
<211> 70
<212> PRT
<213> Homo sapiens
<400> 1243
Pro Ala Arg Cys Met Pro Gly Pro Trp Pro Pro Tyr Leu Ala Ala Ser
Cys Asp Ser Glu Ile His Pro Ser Arg Trp Gln Leu Leu Gly Leu Asn
                       25
Leu Leu Glu Lys Lys Val Pro Ser Gln Glu Asn Ser Phe Tyr Ser Gly
        35
                           40
Arg Asn Ala Ser Glu Thr Pro Gln Gly Ser Leu Asn Thr Gln Leu Gln
                        55
                                           60
Gly Arg Ala Cys Gly Gly
65
<210> 1244
<211> 51
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1244
Val Tyr Thr Leu Pro Ser His Lys Pro Ile Phe Lys Arg Ser Asn Ala
        5
Met Thr Ala Ile Leu Gln Glu Lys Lys Leu Tyr Ser Cys Gly Asp
            20
                               25
Val Pro His Thr Xaa His Gln Leu Gln Gly Val Cys Pro Leu Gln Thr
```

40

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Pro Glu Pro
    50
<210> 1245
<211> 111
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (97)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1245
Asn Ala Val Phe Ser Ile Thr Asp Leu Ser Leu Pro Asn Tyr Leu Met
Ala Ser Ser Val Gly Leu Leu Pro Thr Gln Leu Leu Asn Ser Tyr Leu
             20
Gly Thr Thr Leu Arg Thr Met Glu Asp Val Ile Ala Glu Gln Ser Xaa
        35
                            40
Ser Gly Tyr Phe Val Phe Cys Leu Gln Ile Ile Ile Ser Ile Gly Leu
Met Phe Tyr Val Val His Arg Ala Gln Val Glu Leu Asn Ala Ala Ile
                    70
                                       75
Val Ala Cys Glu Met Gly Thr Gly Asn Leu Leu Trp Leu Lys Gly Asn
Xaa Pro Asn Thr Ser Gly Leu Phe His Ser Thr Thr Arg Gly Pro
            100
                               105
<210> 1246
<211> 223
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
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<222> (184) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (195) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (198) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (216) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1246 Lys Gln Ala Gly Cys Ser Ala Ala Pro Gly Ala Val Pro Pro Pro Glu 10 Ala Asp Ser Thr Ser Ala Gly Met Ser Arg Arg Pro Cys Ser Cys Ala 25 3.0 Leu Arg Pro Pro Arg Cys Ser Cys Ser Ala Ser Pro Ser Ala Val Thr Ala Ala Gly Arg Pro Arg Pro Ser Asp Ser Cys Lys Glu Glu Ser Ser Thr Leu Ser Val Lys Met Lys Cys Asp Phe Asn Cys Asn His Val His 65 70 75 Ser Gly Leu Lys Leu Val Lys Pro Asp Asp Ile Gly Arg Leu Val Ser Tyr Thr Pro Ala Tyr Leu Glu Gly Ser Cys Lys Asp Cys Ile Lys Asp 105 Tyr Glu Arg Leu Ser Cys Ile Gly Ser Pro Ile Val Ser Pro Arg Ile 115 120 125 Val Glu Leu Glu Thr Glu Ser Lys Arg Leu His Asn Lys Glu Asn Gln 130 135 140 His Val Gln Gln Thr Leu Asn Ser Thr Asn Glu Ile Glu Ala Leu Glu 150 155 Thr Ser Arg Leu Tyr Glu Asp Ser Ala Ile Pro Gln Phe Leu Tyr Lys 165 170

Val Ala Ser Val Thr Met Lys Xaa Val Ala Phe Trp Arg Arg Asn Ser Val Thr Xaa Tyr Asn Xaa Gly Trp Leu Gln Ile Gln Gly Pro Asp Pro 200 Ile Phe Pro Thr Lys Asn Phe Xaa Leu Ala Arg Ser Phe Asn Phe 215 <210> 1247 <211> 54 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1247 Leu Glu Lys Lys Asp Ile Xaa Asn Met Leu Met Trp Arg Ser Pro Ser Tyr Pro Lys Gly Glu Lys Gln Gly Lys Asp Pro Leu His Ser Lys Phe 25 Pro Leu Gly Ser Pro Arg Ala His Cys Pro Gln Met His Ile Ile Ser 35 40 Ala Glu Ile Gln Lys Pro 50

<211> 77 <212> PRT <213> Homo sapiens

<400> 1248

<210> 1248

Arg Phe Leu Ser Phe Val Phe Gly Leu Asn Phe Ser Pro Arg Ser Leu $1 \hspace{1.5cm} 1 \hspace{1.5cm} 1 \hspace{1.5cm} 15 \hspace{1.5cm} 15$

Phe Val Ser Ser Phe Cys Phe Ser Thr Val Leu Val Ile Thr Leu Cys 20 25 30

Trp Arg Glu Pro Val Ser Leu Trp Pro Pro Leu Pro Lys Leu Lys Gln 35 40 45

Gly Pro Ile Ile Met Ser Val Ser Arg Thr Val Pro Trp Ser Ser His 50 55 60

Ile Pro Gly Pro Arg Leu Gly Pro Pro Ser Cys Val Leu 65 70 75

<210> 1249

<211> 100

<212> PRT

<213> Homo sapiens

<400> 1249

Asn Asn Ile Cys Ser Gln Met Val Phe Leu Ala Val Ser Pro Val Val l 10 $$ 15

Ala Met Phe Arg Val Val Val Leu Ile Tyr Leu Gly Val His Lys Thr 20 25 30

Tyr Leu Ala Gly Leu Phe Lys Lys Phe Arg Phe Leu Ala Leu Tyr Pro $35 \ 40 \ 45$

Gly Ile Ala Ser Gly Gly Met Gly Cys Gly Pro Gly Val Ile Thr Phe $50 \ \ \,$ 55 $\ \ \,$ 60

Ile Asn Ser Gly Ser Glu Thr Thr Glu Arg Asp Cys Phe Ile Glu Trp 65 70 75 80

Glu Val Pro Arg Arg Lys Tyr Asn Ser Val Leu Ser Gly Gly Lys Trp 85 90 95

Thr Leu Cys Thr

<210> 1250

<211> 47

<212> PRT

<213> Homo sapiens

<400> 1250

Ser Asn Leu Met Leu Thr Asn Leu Leu Cys Leu Leu Cys Cys Phe Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Val Pro Ala Ser Ala Ala Leu Gln Met Gln Thr Ile Leu Ser Tyr Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Ala Gly Leu Leu Phe Tyr Phe Val Gly Trp Met Leu Pro Ser Ser

WO 00/55174 PCT/US00/05988 1057

35 40 45

<210> 1251

<211> 193

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1251

Lys Pro Gly Ser Thr Gly Xaa Val Arq Glu Gly Gln Pro Phe Glu Tyr 5 10

Phe Val Tyr Gly Ala Ala Cys Ser Glu Val Glu Ile Asp Cys Leu Thr 20

Gly Asp His Lys Asn Ile Arg Thr Asp Ile Val Met Asp Val Gly Cys 40

Ser Ile Asn Pro Ala Ile Asp Ile Gly Gln Ile Glu Gly Ala Phe Ile 50 55

Gln Gly Met Xaa Leu Tyr Thr Ile Glu Glu Leu Asn Tyr Ser Pro Gln 70

Gly Ile Leu His Thr Arg Gly Pro Asp Gln Tyr Lys Ile Pro Ala Ile

Cys Asp Met Pro Thr Glu Leu His Ile Ala Leu Leu Pro Pro Ser Gln 100 105 110

Asn Ser Asn Thr Leu Tyr Ser Ser Lys Gly Leu Gly Glu Ser Gly Val 115

Phe Leu Gly Cys Ser Val Phe Phe Ala Ile His Asp Ala Val Ser Ala 135

Ala Arg Gln Glu Arg Gly Leu His Gly Pro Leu Thr Leu Asn Ser Pro 145 150 155

Leu Thr Pro Glu Lys Ile Arg Met Ala Cys Glu Asp Lys Phe Thr Lys

165 170 175 Met Ile Pro Arg Asp Glu Pro Gly Ser Tyr Val Pro Trp Asn Val Pro 180 185 Ile <210> 1252 <211> 51 <212> PRT <213> Homo sapiens <400> 1252 Gly Ser Ser Lys Gly Ile Phe Leu Leu Phe Ser Leu Phe Leu Gly Cys 10 Ser Lys Phe Ser Arg Ser Ser Ser Arg Ile Arg Lys Arg Ser Ile Val 25 Arg Asn Arg Phe Trp Val Leu Leu Lys Phe Ala Cys Gln His Cys Ile 35 40 Thr Phe Pro 50 <210> 1253 <211> 696 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (5) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (541) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1253

His Glu Arg Glu Xaa His Gly Leu Gly Ala Asp Cys Arg Ala Gly Arg

1 5 10 15

Leu Val Val Met Pro Gly Phe Leu Val Arg Ile Leu Leu Leu Leu

20 25 30

Val Leu Leu Leu Gly Pro Thr Arg Gly Leu Arg Asn Ala Thr Gln

Tyr Gln Asn Gly Gly Pro Val Ile Thr Val Gln Val Glu Asn Glu Tyr 195 200 205

Val Asp Lys Trp Leu Gly Val Leu Leu Pro Lys Met Lys Pro Leu Leu 180 185 190

Gly Ser Tyr Phe Ala Cys Asp Phe Asp Tyr Leu Arg Phe Leu Gln Lys 210 215 220

Arg Phe Arg His His Leu Gly Asp Asp Val Val Leu Phe Thr Thr Asp 225 230 235 240

Gly Ala His Lys Thr Phe Leu Lys Cys Gly Ala Leu Gln Gly Leu Tyr 245 250 255

Thr Thr Val Asp Phe Gly Thr Gly Ser Asn Ile Thr Asp Ala Phe Leu 260 265 270

Ser Gln Arg Lys Cys Glu Pro Lys Gly Pro Leu Ile Asn Ser Glu Phe 275 280 285

Tyr Thr Gly Trp Leu Asp His Trp Gly Gln Pro His Ser Thr Ile Lys 290 295 300

Th 30	r Glu 5	ı Ala	va)	. Ala	Ser 310		Leu	Tyr	Asp	Ile 315		Ala	Arg	Gly	Ala 320
Se	r Val	l Asr	Leu	Tyr 325		Phe	: Ile	Gly	Gly 330		Asn	Phe	Ala	335	
As	n Gly	Ala	340		Pro	Tyr	Ala	Ala 345		Pro	Thr	Ser	Tyr 350		Tyr
As	p Ala	355		Ser	Glu	Ala	Gly 360		Leu	Thr	Glu	Lys 365	Tyr	Phe	Ala
Le	u Arg 370		Ile	Ile	Gln	Lys 375		Glu	Lys	Val	Pro 380	Glu	Gly	Pro	Ile
Pr 38	o Pro	Ser	Thr	Pro	Lys 390	Phe	Ala	Tyr	Gly	Lys 395	Val	Thr	Leu	Glu	Lys 400
Le	u Lys	Thr	Val	Gly 405	Ala	Ala	Leu	Asp	11e 410		Cys	Pro	Ser	Gly 415	Pro
11	e Lys	Ser	Leu 420		Pro	Leu	Thr	Phe 425	Ile	Gln	Val	Lys	Gln 430	His	Tyr
G1	y Phe	Val 435		Tyr	Arg	Thr	Thr 440	Leu	Pro	Gln	Asp	Cys 445	Ser	Asn	Pro
Al	a Pro 450		Ser	Ser	Pro	Leu 455	Asn	Gly	Val	His	Asp 460	Arg	Ala	Tyr	Val
Ala 465	a Val	Asp	Gly	Ile	Pro 470	Gln	Gly	Val	Leu	Glu 475	Arg	Asn	Asn	Val	11e 480
Thi	Leu	Asn	Ile	Thr 485	Gly	Lys	Ala	Gly	Ala 490	Thr	Leu	Asp	Leu	Leu 495	Va1
Glu	ı Asn	Met	Gly 500	Arg	Val	Asn	Tyr	Gly 505	Ala	Tyr	Ile	Asn	Asp 510	Phe	Lys
Gl3	, Leu	Val 515	Ser	Asn	Leu	Thr	Leu 520	Ser	Ser	Asn	Ile	Leu 525	Thr	Asp	Trp
Thr	1le 530	Phe	Pro	Leu		Thr 535	Glu	Asp	Ala	Val	Arg 540	Xaa	His	Leu	Gly
Gly 545	Trp	Gly	His	Arg	Asp 550	Ser	Gly	His	His	Asp 555	Glu	Ala	Trp	Ala	His 560
Asn	Ser	Ser	Asn	Tyr 565	Thr	Leu	Pro	Ala	Phe	Tyr	Met	Gly	Asn	Phe	Ser

Ile Pro Ser Gly Ile Pro Asp Leu Pro Gln Asp Thr Phe Ile Gln Phe Pro Gly Trp Thr Lys Gly Gln Val Trp Ile Asn Gly Phe Asn Leu Gly 595 600 Arg Tyr Trp Pro Ala Arg Gly Pro Gln Leu Thr Leu Phe Val Pro Gln 615 His Ile Leu Met Thr Ser Ala Pro Asn Thr Ile Thr Val Leu Glu Leu 630 635 Glu Trp Ala Pro Cys Ser Ser Asp Asp Pro Glu Leu Cys Ala Val Thr 645 650 655 Phe Val Asp Arg Pro Val Ile Gly Ser Ser Val Thr Tyr Asp His Pro 665 Ser Lys Pro Val Glu Lys Arg Leu Met Pro Pro Pro Pro Gln Lys Asn 680 685 Lys Asp Ser Trp Leu Asp His Val 690 695 <210> 1254 <211> 400 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (241) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (372) <223> Xaa equals any of the naturally occurring L-amino acids Thr Ser Ser Pro Ser Leu Ala Ser Asp Leu Leu Leu Asn Met Gly Ala 5 15 Phe Leu Asp Lys Pro Lys Thr Glu Lys His Asn Ala His Gly Ala Gly 20 25 Asn Gly Leu Arg Tyr Gly Leu Ser Ser Met Gln Gly Trp Arg Val Glu 35 40 45

Met Glu Asp Ala His Thr Ala Val Val Gly Ile Pro His Gly Leu Glu 50 Asp Trp Ser Phe Phe Ala Val Tyr Asp Gly His Ala Gly Ser Arg Val 65 70 Ala Asn Tyr Cys Ser Thr His Leu Leu Glu His Ile Thr Thr Asn Glu Asp Phe Arg Ala Ala Gly Lys Ser Gly Ser Ala Leu Glu Leu Ser Val 105 Glu Asn Val Lys Asn Gly Ile Arg Thr Gly Phe Leu Lys Ile Asp Glu 115 120 Tyr Met Arg Asn Phe Ser Asp Leu Arg Asn Gly Met Asp Arg Ser Gly Ser Thr Ala Val Gly Val Met Ile Ser Pro Lys His Ile Tyr Phe Ile 150 155 Asn Cys Gly Asp Ser Arg Ala Val Leu Tyr Arg Asn Gly Gln Val Cys 165 170 Phe Ser Thr Gln Asp His Lys Pro Cys Asn Pro Arg Glu Lys Glu Arg 180 185 Ile Gln Asn Ala Gly Gly Ser Val Met Ile Gln Arg Val Asn Gly Ser Leu Ala Val Ser Arg Ala Leu Gly Asp Tyr Asp Tyr Lys Cys Val Asp 215 Gly Lys Gly Pro Thr Glu Gln Leu Val Ser Pro Glu Pro Glu Val Tyr 225 230 235 Xaa Ile Leu Arq Ala Glu Glu Asp Glu Phe Ile Ile Leu Ala Cys Asp 245 250 Gly Ile Trp Asp Val Met Ser Asn Glu Glu Leu Cys Glu Tyr Val Lys 265 Ser Arg Leu Glu Val Ser Asp Asp Leu Glu Asn Val Cys Asn Trp Val 275 280 Val Asp Thr Cys Leu His Lys Gly Ser Arg Asp Asn Met Ser Ile Val 290 295 Leu Val Cys Phe Ser Asn Ala Pro Lys Val Ser Asp Glu Ala Val Lys

315

310

Lys Asp Ser Glu Leu Asp Lys His Leu Glu Ser Arg Val Glu Glu Ile 325 330 335

Met Glu Lys Ser Gly Glu Glu Gly Met Pro Asp Leu Ala His Val Met 340 345 350

Arg Ile Leu Ser Ala Glu Asn Ile Pro Asn Leu Pro Pro Gly Gly Gly 355 360 365

Leu Ala Gly Xaa Arg Asn Val Ile Glu Ala Val Tyr Ser Arg Leu Asn 370 \$375\$

Pro His Arg Glu Ser Asp Gly Gly Ala Gly Asp Leu Glu Asp Pro Trp 385 390 395 400

<210> 1255

<211> 155

<212> PRT

<213> Homo sapiens

<400> 1255

Val Ala Arg Ser Ala Pro Pro Asp Gly Ala Val Cys Ala Gly Pro Gly
1 5 10 15

Ser Arg Arg Thr Glu Met Ala Glu Gln Ser Asp Glu Ala Val Lys Tyr 20 25 30

Tyr Thr Leu Glu Glu Ile Gln Lys His Asn His Ser Lys Ser Thr Trp \$35\$ \$40\$ \$45\$

Leu Ile Leu His His Lys Val Tyr Asp Leu Thr Lys Phe Leu Glu Glu 50 \$55\$

His Pro Gly Gly Glu Glu Val Leu Arg Glu Gln Ala Gly Gly Asp Ala 65 70 75 80

Thr Glu Asn Phe Glu Asp Val Gly His Ser Thr Asp Ala Arg Glu Met \$85\$

Ser Lys Thr Phe Ile Ile Gly Glu Leu His Pro Asp Asp Arg Pro Lys \$100\$

Leu Asn Lys Pro Pro Glu Thr Leu Ile Thr Thr Ile Asp Ser Ser Ser 115 120 125

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Ser Trp Trp Thr Asn Trp Val Ile Pro Ala Ile Ser Ala Val Ala Val
                        135
Ala Leu Met Tyr Arg Leu Tyr Met Ala Glu Asp
                   150
<210> 1256
<211> 378
<212> PRT
<213> Homo sapiens
<220>
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<222> (116)
<223> Kaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (184)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1256
Gln Ala Phe Ala Lys Ser Tyr Leu Gly Asp Thr Ile Glu Gly Thr Pro
Ala Gly Thr Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Arg Arg
                                25
Lys Pro Thr Ala Ala Trp Ser Ala Lys Lys Ser Phe Gln Val Ser Arg
                             40
Thr Gly Leu Phe Leu Ser Lys Ser Gly Ser Thr Leu Thr Met Trp Leu
Tyr Leu Ala Ala Phe Val Gly Leu Tyr Tyr Leu Leu His Trp Tyr Arg
65
                     70
Glu Arg Gln Val Val Ser His Leu Gln Asp Lys Tyr Val Phe Ile Thr
Gly Cys Asp Ser Gly Phe Gly Asn Leu Leu Ala Arg Gln Leu Asp Ala
                               105
Arg Gly Leu Xaa Val Leu Ala Ala Cys Leu Thr Glu Lys Gly Ala Glu
        115
                            120
                                                125
Gln Leu Arg Gly Gln Thr Ser Asp Arg Leu Glu Thr Val Thr Leu Asp
```

130

135

Val 145	Thr	Lys	Met	Glu	Ser 150	Ile	Ala	Ala	Ala	Thr 155		Trp	Val	Lys	Glu 160
His	Val	Gly	Asp	Arg 165	Gly	Leu	Trp	Gly	Leu 170	Val	Asn	Asn	Ala	Gly 175	Ile
Leu	Thr	Pro	11e 180	Thr	Leu	Cys	Xaa	Trp 185		Asn	Thr	Glu	Asp 190	Ser	Met
Asn	Met	Leu 195	Lys	Val	Asn	Leu	11e 200	Gly	Val	Ile	Gln	Val 205	Thr	Leu	Ser
Met	Leu 210	Pro	Leu	Val	Arg	Arg 215	Ala	Arg	Gly	Arg	11e 220	Val	Asn	Val	Ser
225					230	Ala				235	-				240
Lys	Tyr	Gly	Val	Glu 245	Ala	Phe	Ser	Asp	Ile 250	Leu	Arg	Arg	Glu	Ile 255	Gln
		Ī	260	-		Ser		265			•	•	270		
		275				Gln	280					285			-
	290			-		11e 295	-			-	300			-	
305			-		310	Met	•		•	315			-		320
				325		Asp	-		330					335	
			340	-		Ser		345	0			-	350		
		355				Pro	360			Ala	Asp	Tyr 365	Ile	Leu	Thr
Arg	Ser 370	Trp	Pro	Lys	Pro	Ala 375	Gln	Ala	Val						

<210> 1257

<211> 75

<212> PRT

<213> Homo sapiens

<220> <221> SITE <222> (63) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1257 Lys Pro Gln Pro Leu Ala Tyr Ser Ser Phe Asn Thr Arg Asp Leu Trp Leu Ile Trp Gly Arg Lys Thr Leu Lys Val Ile Ser Leu Gly Gln Arg Pro Tyr Cys Thr Arg Gly Lys Lys Tyr Ile Leu His Leu Leu Leu Leu 35 40 Gln Leu Cys Leu Lys Phe Ile Cys Leu Val Ile Leu Ser Thr Xaa Thr Asn Phe Leu Val Tyr Phe Lys His Leu Val Gly 7.0 <210> 1258 <211> 261 <212> PRT <213> Homo sapiens <400> 1258 Pro Ser Gly Ile Pro Gly Ser Thr His Ala Ser Glu Arg Lys Leu Pro Glu Glu His Ala Arg Phe Tyr Ser Ala Glu Ile Ser Leu Ala Leu Asn 25 Tyr Leu His Glu Arg Gly Ile Ile Tyr Arg Asp Leu Lys Leu Asp Asn 40 45 Val Leu Leu Asp Ser Glu Gly His Ile Lys Leu Thr Asp Tyr Gly Met Cys Lys Glu Gly Leu Arg Pro Gly Asp Thr Thr Ser Thr Phe Cys Gly Thr Pro Asn Tyr Ile Ala Pro Glu Ile Leu Arg Gly Glu Asp Tyr Gly 90

Phe Ser Val Asp Trp Trp Ala Leu Gly Val Leu Met Phe Glu Met Met 100 105 110 Ala Gly Arg Ser Pro Phe Asp Ile Val Gly Ser Ser Asp Asn Pro Asp 115 120 125

Gln Asn Thr Glu Asp Tyr Leu Phe Gln Val Ile Leu Glu Lys Gln Ile $130 \ \ 135 \ \ 140$

Arg Ile Pro Arg Ser Leu Ser Val Lys Ala Ala Ser Val Leu Lys Ser 145 150 155 160

Phe Leu Asn Lys Asp Pro Lys Glu Arg Leu Gly Cys His Pro Gln Thr \$165\$ \$170\$

Gly Phe Ala Asp Ile Gln Gly His Pro Phe Phe Arg Asn Val Asp Trp $180 \hspace{1cm} 185 \hspace{1cm} 190 \hspace{1cm}$

Asp Met Met Glu Gln Lys Gln Val Val Pro Pro Phe Lys Pro Asn Ile 195 \$200\$

Ser Gly Glu Phe Gly Leu Asp Asn Phe Asp Ser Gln Phe Thr Asn Glu $210 \ \ 215 \ \ \ 220 \ \ \$

Pro Val Gln Leu Thr Pro Asp Asp Asp Ile Val Arg Lys Ile Asp 225 230235235

Gln Ser Glu Phe Glu Gly Phe Glu Tyr Ile Asn Pro Leu Leu Met Ser 245 250 250

Ala Glu Glu Cys Val 260

<210> 1259

<211> 115

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1259

Phe Gly Xaa Gly Ala Leu Leu Lys Leu Ile Phe Pro Asp Gly Ala Phe

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Glu Ser Glu Asn Arg Ala Leu Ile Asn Val Gln Met Leu Asn Asn Ser
Gly Phe Ala Arg Gly Ile Ile Glu Glu Phe Gln Asn Asn Asn Asp Leu
                              40
Glu Leu Gln Gln Lys Cys Ile Asn Val Leu Ser Thr Tyr Ala Met Ile
      50
                          55
Gln Gly Gln Ile Asp Ala Asn Lys Glu Ile Gly Gln Phe Phe Ile Gln
                     70
                                         75
Thr Leu Thr Gln Leu Asn Val Arg Pro Glu Ile Leu Ile Glu Met Thr
Asn Ser Leu Phe Gln Phe Thr Gly Met Pro Leu Thr Ala Ile Met Glu
                                105
Pro Xaa Leu
        115
<210> 1260
<211> 296
<212> PRT
<213> Homo sapiens
<220>
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<222> (59)
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<220>
<221> SITE
<222> (124)
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<222> (247)
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<222> (270)
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<220>
<221> SITE
<222> (282)
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<223> Xaa equals any of the naturally occurring L-amino acids <400> 1260 Arg Pro Thr Arg Pro Arg His Ala Trp Ala Glu Leu Arg Val Val Ala Met Ala Ala Ser Gly Ala Val Glu Pro Gly Pro Pro Gly Ala Ala Val 20 25 Ala Pro Ser Pro Ala Pro Ala Pro Pro Pro Ala Pro Asp His Leu Phe 40 Arg Pro Ile Ser Ala Glu Asp Glu Glu Gln Xaa Pro Thr Glu Ile Glu Ser Leu Cys Met Asn Cys Tyr Cys Asn Gly Met Thr Arg Leu Leu Leu 70 Thr Lys Ile Pro Phe Phe Arg Glu Ile Ile Val Ser Ser Phe Ser Cys Glu His Cys Gly Trp Asn Asn Thr Glu Ile Gln Ser Ala Gly Arg Ile 105 Gln Asp Gln Gly Val Arg Tyr Thr Leu Ser Val Xaa Ala Leu Glu Asp 120 Met Asn Arg Glu Val Val Lys Thr Asp Ser Ala Ala Thr Arg Ile Pro 135 Glu Leu Asp Phe Glu Ile Pro Ala Phe Ser Gln Lys Gly Ala Leu Thr 145 150 Thr Val Glu Gly Leu Ile Thr Arg Ala Ile Ser Gly Leu Glu Gln Asp 170 Gln Pro Ala Arg Arg Ala Asn Lys Asp Ala Thr Ala Glu Arg Ile Asp 180 Glu Phe Ile Val Lys Leu Lys Glu Leu Lys Gln Val Ala Ser Pro Phe 200 Thr Leu Ile Ile Asp Asp Pro Ser Gly Asn Ser Phe Val Glu Asn Pro His Ala Pro Gln Lys Asp Asp Ala Leu Val Ile Thr His Tyr Asn Arg 230 235 Thr Arg Gln Glu Glu Xaa Leu Gly Leu Gln Glu Glu Ala Pro Ala

250

245

```
Glu Lys Pro Glu Glu Glu Asp Leu Arg Asn Glu Val Leu Xaa Phe Ser
                                265
Thr Asn Cys Pro Glu Cys Asn Val Pro Xaa Gln Thr Asn Met Lys Leu
                            280
Met Val Val Leu Phe Ala Tro Lvs
    290
<210> 1261
<211> 53
<212> PRT
<213> Homo sapiens
<400> 1261
Gly Gly Arg Gly Gly Arg Ile Thr Gly Ala Arg Glu Phe Lys Thr Ser
                                    10
Leu Gly Asn Ile Val Lys Pro Ser Pro Gln Ile Ile Phe Lys Lys Leu
             20
                                 25
                                                    30
Ala Arg His Gly Gly Ala Ala Cys Ser Pro Ser Tyr Ser Gly Gly Leu
Gly Gly Arg Ile Ala
    50
<210> 1262
<211> 200
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (7)
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<223> Xaa equals any of the naturally occurring L-amino acids

 $<\!400>$ 1262 Asp Ser His Xaa Thr Xaa Xaa Pro Val Asp Pro Arg Val Arg Glu Ala 1 5 10 15 .

Gly Ile Pro Glu Phe Tyr Asp Tyr Asp Val Ala Leu Ile Lys Leu Lys $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Asn Lys Leu Lys Tyr Gly Gln Thr Ile Arg Pro Ile Cys Leu Pro Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Thr Glu Gly Thr Thr Arg Ala Leu Arg Leu Pro Pro Thr Thr Thr Cys $50 \ \ 55 \ \ 60$

Gln Gln Gln Lys Glu Glu Leu Leu Pro Ala Gln Asp Ile Lys Ala Leu 65 70 75 80

Phe Val Ser Glu Glu Glu Lys Lys Leu Thr Arg Lys Glu Val Tyr Ile 85 90 95

Lys Asn Gly Asp Lys Lys Gly Ser Cys Glu Arg Asp Ala Gln Tyr Ala 100 105 110

Pro Gly Tyr Asp Lys Val Lys Asp Ile Ser Glu Val Val Thr Pro Arg 115 $$\rm 120$$ 125

Phe Leu Cys Thr Gly Gly Val Ser Pro Tyr Ala Asp Pro Asn Thr Cys 130 135 140

Arg Gly Asp Ser Gly Gly Pro Leu Ile Val His Lys Arg Ser Arg Phe 145 \$150\$ \$150\$ \$155\$

Ile Gln Val Gly Val Ile Ser Trp Gly Val Val Asp Val Cys Lys Asn 165 170 175

Gln Lys Arg Gln Lys Gln Val Pro Val Thr Pro Glu Thr Phe Thr Ser $180 \,$ $185 \,$ 190

Thr Ser Phe Lys Cys Cys Pro Gly 195 200

<210> 1263

<211> 110

<212> PRT

<213> Homo sapiens

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<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

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<400> 1263
Cys Ala Arg Pro His Cys His Gly Pro Gln Ile Tyr Ser Ser Lys Gln
 1
                                     10
                                                         15
Ser Ser His Gly Thr Phe Pro Gln Gly Ala Val Ser Pro Val Glu Glu
             20
                                 25
Ser Asp Met Thr His His Thr Asp Arg Lys Ile Xaa Thr Asn Tyr Glu
Lys Asn Ala Glu Gly Arg Lys Asn Ile Gly Gly Pro Ala Ala Glu Ser
                         55
Arg Leu Thr Cys Arg Asp Leu Cys Trp Pro Gly Pro Val Leu Gly Ser
 65
                                         75
Xaa Xaa His Gly Ile Lys Ser Asn Lys Xaa Thr Val Cys Xaa His Leu
                 85
Thr Val Trp Glu Lys Glu Gln Ala Pro Phe Thr Gly Phe Tyr
                               105
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<210> 1264 <211> 151 <212> PRT

<213> Homo sapiens

<400> 1264

Phe Trp Pro Cys Arg Ala Phe Gly Ile Pro Ile Arg Val Tyr Thr His 1 5 10 15

Glu Val Val Thr Leu Trp Tyr Arg Ser Pro Glu Val Leu Leu Gly Ser \$20\$

Ala Arg Tyr Ser Thr Pro Val Asp Ile Trp Ser Ile Gly Thr Ile Phe $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ala Glu Leu Ala Thr Lys Lys Pro Leu Phe His Gly Asp Ser Glu Ile 50 55 60

Val Trp Pro Glu Val Glu Ser Leu Gln Asp Tyr Lys Asn Thr Phe Pro 85 90 95

Lys Trp Lys Pro Gly Ser Leu Ala Ser His Val Lys Asn Leu Asp Glu 100 105 110

Asn Gly Leu Asp Leu Leu Ser Lys Met Leu Ile Tyr Asp Pro Ala Lys 115 120 125

Arg Ile Ser Gly Lys Met Ala Leu Asn His Pro Tyr Phe Asn Asp Leu 130 135 140

Asp Asn Gln Ile Lys Lys Met 145 150

<210> 1265

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1265

Pro Glu Trp Trp Pro Asp Ser Arg Ser Pro Ser Ser Pro Arg Thr Pro 1 5 10 15

Arg Ser Ser Ser Ser Xaa Pro Tyr Ser Pro Thr His Phe Pro Pro Pro 20 25 30

Leu Leu Gln Ala Gly Ser Val Phe Leu Leu Val Pro Glu Ala Leu Cys 35 40 45

Ser Ser Pro Pro Ser Glu Pro Pro Tyr Ala Gly Ser Cys Lys Ala Trp Leu Ser Ala Asp Gly Ser Ser Gln Asp 70 <210> 1266 <211> 319 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (305) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1266 Trp Gln Ser Ile Leu Pro Phe Ile Gln His Lys Arg Ser Trp Arg Gln 5 10 Ser Arg Thr Trp Cys Ser His Thr Glu Arg Ala Leu Lys Ala Val Ser 20 Asp Trp Ile Asp Glu Gln Glu Lys Gly Ser Ser Glu Gln Ala Glu Ser 40 Asp Asn Met Asp Val Pro Pro Glu Asp Asp Ser Lys Glu Gly Ala Gly 60 Glu Gln Lys Thr Glu His Met Thr Arg Thr Leu Arg Gly Val Met Arg Val Gly Leu Val Ala Lys Gly Leu Leu Leu Lys Gly Asp Leu Asp Leu

Lys Val Ala Asp Asn Leu Ala Ile Gln Leu Ala Ala Val Thr Glu Asp 115 120 125

Glu Leu Val Leu Leu Cys Lys Glu Lys Pro Thr Thr Ala Leu Leu Asp

105

100

110

Lys Tyr Glu Ile Leu Gln Ser Val Asp Asp Ala Ala Ile Val Ile Lys 130 135 140

Asn Thr Lys Glu Pro Pro Leu Ser Leu Thr Ile His Leu Thr Ser Pro 145 150 155 160

Val Val Arg Glu Glu Met Glu Lys Val Leu Ala Gly Glu Thr Leu Ser

175

170

Val Asn Asp Pro Pro Asp Val Leu Asp Arg Gln Lys Cys Leu Ala Ala 180 Leu Ala Ser Leu Arg His Ala Lys Trp Phe Gln Ala Arg Ala Asn Gly 200 Leu Lys Ser Cys Val Ile Val Ile Arg Val Leu Arg Asp Leu Cys Thr 215 Arg Val Pro Thr Trp Gly Pro Leu Arg Gly Trp Pro Leu Glu Leu Leu 225 230 235 Cys Glu Lys Ser Ile Gly Thr Ala Asn Arg Pro Met Gly Ala Gly Glu Ala Leu Arg Arg Val Leu Glu Cys Leu Ala Ser Gly Ile Val Met Pro 265 Asp Gly Ser Gly Ile Tyr Asp Pro Cys Glu Lys Glu Ala Thr Asp Ala 280 Ile Gly His Leu Asp Arg Gln Gln Arg Glu Asp Ile Thr Gln Ser Ala Xaa Pro His Cys Gly Ser Leu Pro Ser Ala Ser Ser Ile Lys Ser <210> 1267 <211> 119 <212> PRT

165

Phe Gly Arg Val Arg Pro Gln Arg Gln Ala Val Thr Leu Leu Leu Leu 1 5 10 15

Pro Leu Ala Met Ser Thr Ser Thr Ser Cys Pro Ile Pro Gly Gly Arg 20 25 30

<213> Homo sapiens <400> 1267

Asp Gln Leu Pro Asp Cys Tyr Ser Thr Thr Pro Gly Gly Thr Leu Tyr \$35\$ \$40\$ \$45\$

Ala Thr Thr Pro Gly Gly Thr Arg Ile Ile Tyr Asp Arg Lys Phe Leu $50 \hspace{1cm} 55 \hspace{1cm} 60$

Leu Glu Cys Lys Asn Ser Pro Ile Ala Arg Thr Pro Pro Cys Cys Leu 65 70 75 80

```
Pro Gln Ile Pro Gly Val Thr Thr Pro Pro Thr Ala Pro Leu Ser Lys
                 85
Leu Glu Glu Leu Lys Glu Gln Glu Thr Glu Glu Glu Ile Pro Asp Asp
            100
                                105
                                                    110
Ala Gln Phe Glu Met Asp Ile
        115
<210> 1268
<211> 329
<212> PRT
<213> Homo sapiens
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<222> (59)
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<220> <221> SITE <222> (327) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (328) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (329) <223> Kaa equals any of the naturally occurring L-amino acids <400> 1268 Arg Cys Kaa Gly Ser Ala Arg Ile Glu Val Cys Ser Ala Phe Gly Ser Met Ser Ala Ala Val Thr Ala Gly Lys Leu Ala Arg Ala Pro Ala Asp Pro Gly Lys Ala Gly Val Pro Gly Val Ala Ala Pro Gly Ala Pro Ala Ala Ala Pro Pro Ala Lys Glu Ile Pro Glu Xaa Leu Val Asp Pro Arg Ser Arg Arg Tyr Val Arg Gly Arg Phe Leu Gly Lys Gly Gly Phe Ala Lys Cys Phe Glu Ile Ser Asp Ala Asp Thr Lys Glu Val Phe Ala Gly Lys Ile Val Pro Lys Ser Leu Leu Leu Lys Pro His Gln Arg Glu 105 Lys Met Ser Met Glu Ile Ser Ile His Arg Ser Leu Ala His Gln His 115 120 125 Val Val Gly Phe His Gly Phe Phe Glu Asp Asn Asp Phe Val Phe Val 130 135 Val Leu Glu Leu Cys Arg Arg Ser Leu Leu Glu Leu His Lys Arg 155 150 Arg Lys Ala Leu Thr Glu Pro Glu Ala Arg Tyr Tyr Leu Arg Gln Ile 165 170 175 Val Leu Gly Cys Gln Tyr Leu His Arg Asn Arg Val Ile His Arg Asp

180 185 190 Leu Lys Leu Gly Asn Leu Phe Leu Asn Glu Asp Leu Glu Val Lys Ile 200 Gly Asp Phe Gly Leu Ala Thr Lys Val Glu Tyr Asp Gly Glu Arg Lys Lys Thr Leu Cys Gly Thr Pro Asn Tyr Ile Ala Pro Glu Val Leu Ser Lys Lys Gly His Ser Phe Glu Val Asp Val Trp Ser Ile Gly Cys Ile 250 Met Tyr Thr Leu Leu Val Gly Lys Pro Pro Phe Glu Thr Ser Cys Leu 260 265 Lys Glu Thr Tyr Leu Arg Ile Lys Lys Asn Glu Tyr Ser Ile Pro Lys 280 His Ile Asn Pro Val Ala Ala Ser Leu Ile Gln Lys Met Leu Gln Thr 290 295 Asp Pro Xaa Xaa Arg Gln Pro Leu Thr Xaa Cys Leu Xaa Thr Ser Asp 305 310 315 Leu Ser Xaa Gln Lvs Lvs Xaa Xaa Xaa 325 <210> 1269 <211> 144 <212> PRT <213> Homo sapiens <400> 1269 Leu Gln Thr Asn Ser Phe Pro Val Leu Leu Thr Gln Gly Leu Glu Ser Asn Asp Phe Glu Met Leu Asn Lys Val Leu Gln Thr Arg Asn Val Asn 25 Leu Ile Lys Lys Thr Val Leu Arg Met Pro Leu His Thr Ile Ile Pro 35 40 Leu Leu Gln Glu Leu Thr Lys Arg Leu Gln Gly His Pro Asn Ser Ala Val Leu Met Val Gln Trp Leu Lys Cys Val Leu Thr Val His Ala Ser

Tyr Leu Ser Thr Leu Pro Asp Leu Val Pro Gln Leu Gly Thr Leu Tyr 85 90 95

Gln Leu Met Glu Ser Arg Val Lys Thr Phe Gln Lys Leu Ser His Leu $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

His Gly Lys Leu Ile Leu Leu Ile Thr Gln Val Thr Ala Ser Glu Lys 115 120 125

Thr Lys Gly Ala Thr Ser Pro Gly Gln Lys Ala Lys Leu Val Tyr Glu 130 135 140

<210> 1270

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1270

Asn Ser Ala Arg Ala Thr Leu Asp Glu Ala Thr Pro Thr Leu Thr Asn $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gln Ser Pro Thr Leu Thr Leu Gln Ser Thr Asn Thr His Thr Gln Ser 20 25 30

Ser Ser Ser Ser Ser Xaa Gly Gly Leu Phe Arg Ser Arg Pro Ala His $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Ser Leu Pro Pro Gly Glu Asp Gly Arg Val Glu Pro Tyr Val Asp Phe 50 55 60

Ala Glu Phe Tyr Arg Leu Trp Ser Val Asp His Gly Glu Gln Ser Val 65 70 75 80

Val Thr Ala Pro

<210> 1271

<211> 123

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<212> PRT
<213> Homo sapiens
<220>
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<222> (28)
<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids
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<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1271
Leu Gln Ala Ala Gly Gly His Leu Thr Ala Ala Pro Gly Ala Val His
                                     10
                                                         15
Gly Ala Ala Ala Val Arg Phe Gln Ala Ala Ala Xaa Xaa Gln Glu Gly
Val Glu Ala Ala Pro Arg Pro Val Ser Pro Gln Ala Ser Leu Glu Glu
                             40
Arg Ala Val Ser Arg Asn Pro Leu Cys Xaa Leu Cys Leu Glu Glu Arg
     50
                         55
                                             60
Arg His Pro Thr Ala Thr Pro Cys Gly Xaa Leu Phe Cys Trp Glu Cys
 65
                    7.0
Ile Xaa Ala Trp Cys Ser Ser Lys Ala Glu Cys Pro Leu Leu Pro Gly
Glu Ser Ser Leu Pro Arg Lys Leu Ile Tyr Leu Arg His Tyr Arg Leu
            100
                               105
Asn Arg Arg Pro Gly Trp Ala Leu Asp Thr Asn
```

115 120

<210> 1272

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1272

Gly Thr Glu Lys Arg Glu Lys Arg Leu Gly Ser His His Gly Glu Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gly Val Ser Gln Leu Thr Ser Ala Gly Asp Ser Gly Val Leu Val Leu 20 \$25\$

Pro Leu Ser Leu Pro Pro Arg Ser Ser Leu Ala Gly Leu Ala Glu Ala 35 \$40\$

Pro Thr Gln Gly Arg Val Val Phe Glu Asp Val Ala Ile Tyr Phe Ser 65 70 75 80

Arg Arg Ser Gly Gly Thr 85

<210> 1273

<211> 72 <212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1273

Ile Glu Pro Leu Leu Arg Leu Leu Arg Ile Asn His Leu Leu Asn Arg 1 1

Ser Ala Tyr Gln Glu Gly Arg Glu Gly Ser Gln Lys Glu Met Leu Ala $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Pro Gly Pro Arg Ser Gln Gly Leu Leu Thr Pro Gly Val Asp Phe Phe $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Glu Val Ala Pro Tyr Lys Gly Asn Met Ala Xaa Ala Gly Thr Ser 50 60

Thr Gly Arg Leu Xaa Ser Gly Xaa 65 70

<210> 1274

<211> 56

<212> PRT

<213> Homo sapiens

<400> 1274

His Leu Thr Tyr Ser Trp His Leu Val Gly Thr Glu Ser Met Asn Arg 1 $$ 5 $$ 10 $$ 15

Ser Tyr Trp Leu Pro Ile Gln Arg Leu Val Gly Val Val Ile Pro Ile 20 25 30

Ala Glu Ser Gln Leu Val Asn Gln Gln Gly Phe His Leu Cys Cys Ser $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Pro Pro Pro Ser Pro Leu Glu Gly 50 55

<210> 1275

<211> 161

<212> PRT

<213> Homo sapiens

<400> 1275

Leu Pro Gly Cys Arg Asn Ser Ala Gln Asn Cys Arg Leu Ile Phe Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Lys Ala Lys Pro Ser Val Leu Ala Leu Cys Leu Leu Asn Leu Glu Val 20 25 30

Glu Thr Leu Lys Ser Val Glu Leu Leu Glu Ile Leu Leu Leu Val Lys 35 40 45 Lys His Ser Lys Ile Asn Asp Thr Glu Phe Phe Tyr Trp Arg Glu Leu 50 60

Val Ser Lys Cys Leu Ala Glu Tyr Ser Ser Pro Glu Cys Cys Lys Pro 65 70 75 80

Asp Leu Lys Lys Leu Val Trp Ile Val Ser Arg Arg Thr Ala Gln Asn 85 90 95

Leu His Asn Ser Tyr Tyr Ser Val Pro Glu Leu Pro Thr Ile Pro Glu 100 \$105\$

Gly Cys Phe Asp Glu Ser Glu Ser Glu Asp Ser Cys Glu Asp Met 115 120 125

Ser Cys Gly Glu Glu Ser Leu Ser Ser Ser Pro Pro Ser Asp Gln Glu 130 135 140

Cys Thr Phe Phe Asn Phe Lys Val Ala Gln Thr Leu Cys Phe Pro 145 150 155 160

Ser

<210> 1276

<211> 49

<212> PRT

<213> Homo sapiens

<400> 1276

Asn Asn Lys Ser Leu Leu Lys Lys Tyr Ile Phe Phe Leu Leu Arg Ala 1 5 10 15

Leu Leu Ala Ile Gly Asn Leu Lys Ile Ser Ser Pro Lys Gln Gly Pro 20 25 30

Tyr Gln Ile Phe Leu Asp Pro Pro Met Leu Ser Val Leu Ala Thr His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys

<210> 1277

<211> 89

<212> PRT

<213> Homo sapiens

<400> 1277

Leu Asn Leu Leu Met Ser Thr Ile Leu Phe Leu Gln Asp Leu Pro Gly
1 5 10 15

Leu Lys Arg Asn Tyr Phe Pro Gly Pro Asn Thr Leu Val Phe Tyr Gln \$20\$

His Leu Ile Asp Leu Gly Lys Ala Glu Cys Leu Thr Pro Ala Cys Gly $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ile Leu Leu Trp Gln Ala Glu Gln Thr Asn Thr Asp Phe Asn Ile Gln 50 55 60

Thr Lys Ser Lys Gly Met Glu Lys Asp Thr Pro Ser Gln Asn Lys Glu 65 70 75 80

Ser Ser Tyr Val Asn Leu Arg Gln Ser 85

<210> 1278

<211> 199

<212> PRT

<213> Homo sapiens

<400> 1278

Pro Gln Pro Leu Pro Pro Pro Thr Ser Met Ala Arg His Val Phe Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Thr Gly Pro Pro Gly Val Gly Lys Thr Thr Leu Ile His Lys Ala Ser 20 25 30

Glu Val Leu Lys Ser Ser Gly Val Pro Val Asp Gly Phe Tyr Thr Glu 35 40 45

Glu Val Arg Gln Gly Gly Arg Arg Ile Gly Phe Asp Val Val Thr Leu 50 55 60

Ser Gly Thr Arg Gly Pro Leu Ser Arg Val Gly Leu Glu Pro Pro Pro 65 70 75 80

Gly Lys Arg Glu Cys Arg Val Gly Gln Tyr Val Val Asp Leu Thr Ser 85 90 95

Phe Glu Gln Leu Ala Leu Pro Val Leu Arg Asn Ala Asp Cys Ser Ser 100 105 110

Gly Pro Gly Gln arg Val Cys Val Ile Asp Glu Ile Gly Lys Met Glu 115 120 125 Leu Phe Ser Gln Leu Phe Ile Gln Ala Val Arg Gln Thr Leu Ser Thr 130 135 140

Pro Gly Thr Ile Ile Leu Gly Thr Ile Pro Val Pro Lys Gly Lys Pro 145 150 155 160

Leu Ala Leu Val Glu Glu Ile Arg Asn Arg Lys Asp Val Lys Val Phe 165 170 175

Asn Val Thr Lys Glu Asn Arg Asn His Leu Leu Pro Asp Ile Val Thr 180 185 190

Cys Val Gln Ser Ser Arg Lys 195

<210> 1279

<211> 183

<212> PRT

<213> Homo sapiens

<400> 1279

Phe Gly Thr Glu Gly Ala Met Ala Val Ala Asn Ser Ser Pro Val Asn 1 5 10 15

Pro Val Val Phe Phe Asp Val Ser Ile Gly Gly Gln Glu Val Gly Arg \$20\$ \$25\$ \$30

Met Lys Ile Glu Leu Phe Ala Asp Val Val Pro Lys Thr Ala Glu Asn \$35\$

Phe Arg Gln Phe Cys Thr Gly Glu Phe Arg Lys Asp Gly Val Pro Ile 50 60

Gly Tyr Lys Gly Ser Thr Phe His Arg Val Ile Lys Asp Phe Met Ile 65 70 75 80

Gln Gly Gly Asp Phe Val Asn Gly Asp Gly Thr Gly Val Ala Ser Ile 85 90 95

Tyr Arg Gly Pro Phe Ala Asp Glu Asn Phe Lys Leu Arg His Ser Ala $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

Pro Gly Leu Leu Ser Met Ala Asn Ser Gly Pro Ser Thr Asn Gly Cys

Gln Phe Phe Ile Thr Cys Ser Lys Cys Asp Trp Leu Asp Gly Lys His 130 135 140

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Val Val Phe Gly Lys Ile Ile Asp Gly Leu Leu Val Met Arg Lys Ile
145
                   150
                                       155
Glu Asn Val Pro Thr Gly Pro Asn Asn Lys Pro Lys Leu Pro Val Val
                       170
Ile Ser Gln Cys Gly Glu Met
           180
<210> 1280
<211> 62
<212> PRT
<213> Homo sapiens
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<221> SITE
<222> (17)
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<400> 1280
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                 5
                                   10
Xaa Leu Leu Leu Asp Phe Ser Thr Met Ile Ala Asp Asp Met Ser Asn
Tyr Asp Glu Glu Gly Ala Trp Pro Val Leu Ile Asp Asp Phe Val Glu
                           40
Phe Ala Arg Pro Gln Ile Ala Gly Thr Lys Ser Thr Thr Val
    50
                      55
<210> 1281
<211> 38
<212> PRT
<213> Homo sapiens
<400> 1281
Cys Ser Phe Ile Ile Leu Ile Ile Leu Gly Pro Leu Glu Phe Ala Glu
                                  10
Ser Thr Leu Pro Val Leu Tyr Lys Trp Asn Asn Lys Ala Trp Met Thr
                              25
Ala Cys Leu Phe Thr Ser
         35
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<210> 1282 <211> 515 <212> PRT <213> Bomo sapiens															
<400> 1282															
			Phe	Ser 5	Phe	Leu	Ala	Ala	Ala 10	Pro	Gly	Ser	Ser	Arg 15	Arg
Ala	Ala	Pro	Val 20	Leu	Arg	Pro	Glu	Met 25	Asn	Pro	Ala	Ala	Glu 30	Ala	Glu
Phe	Asn	11e 35	Leu	Leu	Ala	Thr	Asp 40	Ser	Tyr	Lys	Va1	Thr 45	His	Tyr	Lys
Gln	Tyr 50	Pro	Pro	Asn	Thr	Ser 55	Lys	Val	Tyr	Ser	Tyr 60	Phe	Glu	Cys	Arg
Glu 65	Lys	Lys	Thr	Glu	Asn 70	Ser	Lys	Leu	Arg	Lys 75	Val	Lys	Tyr	Glu	Glu 80
Thr	Val	Phe	Tyr	Gly 85	Leu	Gln	Tyr	Ile	Leu 90	Asn	Lys	Tyr	Leu	Lys 95	Gly
Lys	Val	Val	Thr 100	Lys	Glu	Lys	Ile	Gln 105	Glu	Ala	Lys	Asp	Val 110	Tyr	Lys
Glu	His	Phe 115	Gln	Asp	Asp	Val	Phe 120	Asn	Glu	Lys	Gly	Trp 125	Asn	Tyr	Ile
Leu	Glu 130	Lys	Tyr	Asp	Gly	His 135	Leu	Pro	Ile	Glu	Ile 140	Lys	Ala	val	Pro
Glu 145	Gly	Phe	Val	Ile	Pro 150	Arg	Gly	Asn	Val	Leu 155	Phe	Thr	Val	Glu	Asn 160
Thr	Asp	Pro	Glu	Cys 165	Tyr	Trp	Leu	Thr	Asn 170	Trp	Ile	Glu	Thr	11e 175	Leu
Val	Gln	Ser	Trp 180	Tyr	Pro	Ile	Thr	Val 185	Ala	Thr	Asn	Ser	Arg 190	Gl u	Gln
Lys	Lys	Ile 195	Leu	Ala	Lys	Tyr	Leu 200	Leu	Glu	Thr	Ser	Gly 205	Asn	Leu	Asp
Gly	Leu 210	Glu	Tyr	Lys	Leu	His 215	Asp	Phe	Gly	Tyr	Arg 220	Gly	Val	Ser	Ser
Gln	Glu	Thr	Ala	Gly	Ile	Gly	Ala	Ser	Ala	His	Leu	Val	Asn	Phe	Lys

225					230					235					240
Gly	Thr	Asp	Thr	Val 245		Gly	Leu	Ala	Leu 250	Ile	Lys	Lys	Tyr	Tyr 255	Gly
Thr	Lys	Asp	Pro 260	Val	Pro	Gly	Tyr	Ser 265	Val	Pro	Ala	Ala	G1u 270	His	Ser
Thr	Ile	Thr 275	Ala	Trp	Gly	Lys	Asp 280	His	Glu	Lys	Asp	Ala 285	Phe	Glu	His
Ile	Val 290	Thr	Gln	Phe	Ser	Ser 295		Pro	Val	Ser	Val 300	Val	Ser	Asp	Ser
Tyr 305	Asp	Ile	Tyr	Asn	Ala 310	Cys	Glu	Lys	Ile	Trp 315	Gly	Glu	Asp	Leu	Arg 320
His	Leu	Ile	Val	Ser 325	Arg	Ser	Thr	Gln	Ala 330	Pro	Leu	Ile	Ile	Arg 335	Pro
Asp	Ser	Gly	Asn 340	Pro	Leu	Asp	Thr	Val 345	Leu	Lys	Val	Leu	Glu 350	Ile	Leu
Gly	Lys	Lys 355	Phe	Pro	Val	Thr	Glu 360	Asn	Ser	Lys	Gly	Tyr 365	Lys	Leu	Leu
Pro	Pro 370	Tyr	Leu	Arg	Val	Ile 375	Gln	Gly	Asp	Gly	Val 380	Asp	Ile	Asn	Thr
Leu 385	Gln	Glu	Ile	Val	Glu 390	Gly	Met	Lys	Gln	Lys 395	Met	Trp	ser	Ile	Glu 400
Asn	Ile	Ala	Phe	Gly 405	Ser	Gly	Gly	Gly	Leu 410	Leu	Gln	Lys	Leu	Thr 415	Arg
Asp	Leu	Leu	Asn 420	Cys	Ser	Phe	Lys	Cys 425	Ser	Tyr	Val	Val	Thr 430	Asn	Gly
Leu	Gly	11e 435	Asn	Val	Phe	Lys	Asp 440	Pro	Val	Ala	Asp	Pro 445	Asn	Lys	Arg
Ser	Lys 450	Lys	Gly	Arg	Leu	Ser 455	Leu	His	Arg	Thr	Pro 460	Ala	Gly	Asn	Phe
Val 465	Thr	Leu	Glu	Glu	Gly 470	Lys	Gly	Asp	Leu	Glu 475	Glu	Tyr	Gly	Gln	Asp 480
Leu	Leu	His	Thr	Val 485	Phe	Lys	Asn	Gly	Lys 490	Val	Thr	Lys	Ser	Tyr 495	Ser
Phe	Asp	Glu	Ile	Arg	Lys	Asn	Ala	Gln	Leu	Asn	Ile	Glu	Leu	Glu	Ala

500 505 510

Ala His His 515

<210> 1283

<211> 88

<212> PRT

<213> Homo sapiens

<400> 1283

Arg Arg Leu His Leu Phe Leu Leu Ser Leu Leu Gly Met Leu Thr Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Gly Asn Ser Glu Leu Asn Ile Cys Phe Val Arg Lys Tyr Leu Phe \$20\$

Phe Tyr Phe Glu Val Trp Gln Pro Ser Cys Tyr Pro Lys Ala Lys Pro 35 40 45

Leu Cys Gln Glu Ser Asn Lys Cys Leu Glu Ser Lys His Asp Val Ser 50 60

Ile Val Gln Pro Pro Phe Ser Trp Leu Phe Lys Gly Cys Thr Ser Cys 65 70 75 80

Ile Lys Gly Tyr Phe Met Leu Lys 85

<210> 1284

<211> 17

<212> PRT <213> Homo sapiens

<400> 1284

Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Trp Ser Asp Trp $1 \hspace{1cm} 1 \hspace{1cm} 15$

Ser

<210> 1285

<211> 515

<212> PRT

<213> Homo sapiens

<220>
<221> SITE
<222> (74)
<223> Xaa equals any of the naturally occurring L-amino acids
. ,
<220>
<221> SITE
<222> (97)
<pre><223> Xaa equals any of the naturally occurring L-amino acids</pre>
-pas- nad equate any of the hatdrairy occurring b-unitho detas
<220>
<221> SITE
<222> (126)
<pre><223> Xaa equals any of the naturally occurring L-amino acids</pre>
1223 And equals any of the naturally occurring b-amino acids
<220>
<221> SITE
<222> (135)
<pre><223> Xaa equals any of the naturally occurring L-amino acids</pre>
vers was equals any of the naturally occurring beaming actus
<400> 1285
Gly Cys Ser Leu His Leu Trp Ala Ser Leu Ala Arg His Ala Gly Gln
1 5 10 15
Cys Leu Pro Ala Pro Phe Ala Thr Ser Ser Ala Leu Arg Gly Leu Glu
20 25 30
Leu Gly Glu Arg Ala Gly Gly Leu Val Gly Trp Pro Gly Leu Arg Pro
35 40 45
Ala Ala Thr Thr Ile Leu Trp Pro Gly Arg Cys Glu Trp Ser Ala Gly
50 55 60
Gln Ser Ala Arg Cys Leu Ala Pro Gln Xaa Ile Pro Pro Ser Thr Pro
65 70 75 80
Gly Ser Ser Asp Val Gly Gln Leu Cys Ala Gly Ala Cys Asp Pro Arg
85 90 95
Xaa Gly Leu Gly Ala Ala Ser Ile Ala Ala Asp Gly Ala Pro Arg Gly
100 105 110
Pro Gly Glu Tyr Gln Pro Gly Lys Gly Ser Ala Arg Pro Xaa Thr Ala
115 120 125
Asp Pro Gly Arg Ala Gly Xaa Thr Glu Val Arg Glu Pro Ala Gly Ser
130 135 140
Ser Ala Gln Gln Arg Pro Lys Thr Arg Arg Val Ala Pro Leu Lys Asp
145 150 155 160

Leu	Pro	Val	Asn	Asp 165	Glu	His	Val	Thr	Val 170		Pro	Trp	Lys	Ala 175	Asn
Ser	Lys	Gln	Pro 180		Phe	Thr	Ile	His 185	Val	Asp	Glu	Ala	Glu 190	Lys	Glu
Ala	Gln	Lys 195		Pro	Ala	Glu	Ser 200	Gln	Lys	Ile	Glu	Arg 205	Glu	Asp	Ala
Leu	Ala 210	Phe	Asn	ser	Ala	Ile 215		Leu	Pro	Gly	Pro 220	Arg	Lys	Pro	Leu
Val 225	Pro	Leu	Asp	туг	Pro 230	Met	Asp	Gly	Ser	Phe 235	Glu	Ser	Pro	His	Thr 240
Met	Asp	Met	Ser	11e 245	Val	Leu	Glu	Asp	G1u 250		Pro	Val	Ser	Val 255	Asn
Glu	Val	Pro	Asp 260	Tyr	His	Glu	Asp	Ile 265	His	Thr	Tyr	Leu	Arg 270	Glu	Met
Glu	Val	Lys 275	Cys	Lys	Pro	Lys	Val 280	Gly	Tyr	Met	Lys	Lys 285	Gln	Pro	Asp
Ile	Thr 290	Asn	Ser	Met	Arg	Ala 295	Ile	Leu	Val	Asp	Trp 300	Leu	Val	Glu	Val
Gly 305	Glu	Glu	Tyr	Lys	Leu 310	Gln	Asn	Glu	Thr	Leu 315	His	Leu	Ala	Val	Asn 320
Tyr	Ile	Asp	Arg	Phe 325	Leu	Ser	Ser	Met	Ser 330	Val	Leu	Arg	Gly	Lys 335	Leu
Gln	Leu	Val	Gly 340	Thr	Ala	Ala	Met	Leu 345	Leu	Ala	Ser	Lys	Phe 350	Glu	Glu
Ile	Tyr	Pro 355	Pro	Glu	Val	Ala	Glu 360	Phe	val	Tyr	Ile	Thr 365	Asp	Asp	Thr
Tyr	Thr 370	Lys	Lys	Gln	Val	Leu 375	Arg	Met	Glu	His	Leu 380	Val	Leu	Lys	Val
Leu 385	Thr	Phe	Asp	Leu	Ala 390	Ala	Pro	Thr	val	Asn 395	Gln	Phe	Leu	Thr	Gln 400
Tyr	Phe	Leu	His	Gln 405	Gln	Pro	Ala	Asn	Cys 410	Lys	Val	Glu	Ser	Leu 415	Ala
Met	Phe	Leu	Gly 420	Glu	Leu	Ser	Leu	11e 425	Asp	Ala	Asp	Pro	Tyr 430	Leu	Lys

```
Tyr Leu Pro Ser Val Ile Ala Gly Ala Ala Phe His Leu Ala Leu Tyr
       435
                           440
Thr Val Thr Gly Gln Ser Trp Pro Glu Ser Leu Ile Arg Lys Thr Gly
    450
                        455
                                           460
Tyr Thr Leu Glu Ser Leu Lys Pro Cys Leu Met Asp Leu His Gln Thr
465
Tyr Leu Lys Ala Pro Gln His Ala Gln Gln Ser Ile Arg Glu Lys Tyr
                                   490
Lys Asn Ser Lys Tyr His Gly Val Ser Leu Leu Asn Pro Pro Glu Thr
           500
                               505
                                                    510
Leu Asn Leu
        515
<210> 1286
<211> 108
<212> PRT
<213> Homo sapiens
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<222> (85)
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<223> Xaa equals any of the naturally occurring L-amino acids
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Arg Pro Ala Cys Pro Ser Gln Glu Arg Pro Pro Pro Ser Gln Gln Met
                 5
                                    10
Arg Gln Gly Cys Leu Ala Leu Pro Lys Ser Glu Ser Leu Pro Ser Gly
```

20 25 30

Ile Cys Arg Ser Ala Gln Gly Ser Arg Arg Ser Arg Gly Ala Gly Ala
35 40 45

Ala Gly Pro Gln Pro Pro Leu Glu Arg Ala Asp Val Leu Asn Val Ser

Pro Gly Arg Cys Leu Pro His Gln Trp Lys Leu Ser Ser Cys Cys Lys 65 70 75 80

Thr Trp Leu Phe Xaa Glu Ser Phe Glu Ile His Arg Ser Thr Tyr Xaa 85 90 95

Val His Gln Arg Thr Xaa Gly Ala Gly Val Xaa Pro 100 105

<210> 1287

<211> 214

<212> PRT

<213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (211)

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<100> 120

Gln Val Arg Phe Pro Ala Glu Glu Ala Ser Ser Pro Ala Pro Trp His 1 5 10 15

Pro Lys Ala Ala Ala Arg Ala Leu Pro Gln Ala Leu Ala Asn Gly Ala 20 25 30

Gln Leu Leu Leu Gly Ser Ala Gly Pro Thr Met Glu Asn Gln Val \$35\$ \$40\$

Gln Thr Leu Thr Ser Tyr Leu Trp Ser Arg His Leu Pro Val Glu Pro 50 55 60

Glu Glu Leu Gln Arg Arg Ala Arg His Leu Glu Lys Lys Phe Leu Glu 65 70 75 80

His Ala Leu Arg Lys Thr Thr Tyr His Trp Gln Glu Leu Ser Tyr Thr $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Glu Gly Leu Ser Leu Val Tyr Met Ala Ala Arg Leu Asp Gly Gly Phe 115 120 125

Ala Ala Val Ser Arg Ala Phe His Glu Ile Arg Ala Arg Asn Pro Ala 130 135 140

Phe Gln Pro Gln Thr Leu Met Asp Phe Gly Ser Gly Thr Gly Leu Ser 145 150 155 160

Pro Gly Leu Xaa Thr Val Phe Gly Ala Arg Ala Tyr Val Asn Ile Trp $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$

Cys Gly Gln Ile Thr Cys Met Trp Phe Ala Glu Asn Ser Glu Arg Gly 180 $$180\,$

Xaa Ile Gly Ser Leu Tyr Ser Gly Leu Phe Xaa Ser Ser Thr Xaa Asn 195 200 205

Gln Xaa Xaa Leu Met Ile 210

<210> 1288

<211> 68

<212> PRT

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<213> Homo sapiens
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<220>
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<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1288
Xaa Ser Leu Asn Cys Gly Ser Ile Ser Thr Xaa Thr Asn Gln Gly Ser
                                     10
                                                         15
Pro Leu Ser Val Gly Tyr His Phe Pro Leu Leu Pro Pro Val Ile Phe
                                 25
Thr Phe Ser Thr Thr Gly Glu Leu Met Gly Ser Glu Gly Gln Met Tyr
Phe Leu Phe Gly His Arg Gly Phe Pro Val Leu Cys Val Phe Leu Met
     50
                         55
Lys Glu Ser Leu
 65
<210> 1289
<211> 318
<212> PRT
<213> Homo sapiens
<400> 1289
Arg Leu Gln Val Val Gln Gln Trp Ile Gln Arg Ile Arg Gln Arg Pro
                  5
Gly Cys Leu Trp Leu Leu Ala Val Ala Leu Leu Pro Trp Thr Cys Ala
             20
Ser Arg Ala Leu Gln His Leu Asp Pro Pro Ala Pro Leu Pro Leu Val
Ile Trp His Gly Met Gly Asp Ser Cys Cys Asn Pro Leu Ser Met Gly
    50
                         55
                                            60
Ala Ile Lys Lys Met Val Glu Lys Lys Ile Pro Gly Ile Tyr Val Leu
65
                    70
```

Ser Leu Glu Ile Gly Lys Thr Leu Met Glu Asp Val Glu Asn Ser Phe \$85\$

Phe Leu Asn Val Asn Ser Gln Val Thr Thr Val Cys Gln Ala Leu Ala 100 105 110

Lys Asp Pro Lys Leu Gln Gln Gly Tyr Asn Ala Met Gly Phe Ser Gln 115 120 125

Gly Gln Phe Leu Arg Ala Val Ala Gln Arg Cys Pro Ser Pro Pro 130 135 140

Met Ile Asn Leu Ile Ser Val Gly Gly Gln His Gln Gly Val Phe Gly 145 \$150\$

Leu Pro Arg Cys Pro Gly Glu Ser Ser His Ile Cys Asp Phe Ile Arg 165 170 175

Lys Thr Leu Asn Ala Gly Ala Tyr Ser Lys Val Val Glu Arg Leu $180 \hspace{1cm} 185 \hspace{1cm} 185 \hspace{1cm} 190 \hspace{1cm}$

Val Gln Ala Glu Tyr Trp His Asp Pro Ile Lys Glu Asp Val Tyr Arg 195 200 205

Asn His Ser Ile Phe Leu Ala Asp Ile Asn Gln Glu Arg Gly Ile Asn 210 $$\rm 220$$

Glu Ser Tyr Lys Lys Asn Leu Met Ala Leu Lys Lys Phe Val Met Val 225 230 235

Lys Phe Leu Asn Asp Ser Ile Val Asp Pro Val Asp Ser Glu Trp Phe \$245\$ \$250\$ \$255\$

Gly Phe Tyr Arg Ser Gly Gln Ala Lys Glu Thr Ile Pro Leu Gln Glu 260 265 270

Thr Ser Leu Tyr Thr Gln Asp Arg Leu Gly Leu Lys Glu Met Asp Asn 275 280 285

Ala Gly Gln Leu Val Phe Leu Ala Thr Glu Gly Asp His Leu Gln Leu 290 295 300

Ser Glu Glu Trp Phe Tyr Ala His Ile Ile Pro Phe Leu Gly 305 \$310\$

<210> 1290

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1290
Lys His Met Gly Ser Cys Arg Leu Leu Leu Cys Phe Phe Pro Leu Ser
1 5 10
15

Arg Trp Pro Gly Arg Asp Thr Thr Phe Cys Asn Gln Gly Thr Glu Asn \$20\$

Arg Arg Ala Cys Ser Gln Gln Ala Asn Ser Leu Arg Tyr Lys Ile Thr \$35\$

Tyr Arg Ser Cys Leu Arg Met Val Thr Asp Arg Pro Asp Cys Leu Gly 50 55 60

His Arg Asn Thr Ser Cys Phe Pro Leu Lys Lys Val Leu Pro Glu Ala 65 70 75 80

Phe Cys Leu Ser Ala Pro Cys Trp Ser Glu Val Gln Ala Asp Glu Asn 85 90 95

Pro Asp Ile Ala Cys Gly Gly Leu Gln Leu Arg Lys Val Gly Arg Glu 100 105 110

Ile Ile Leu Val Leu Val Gln 115

<210> 1291

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1291

Ile Ser Asp Pro Tyr Ser Gln Gly Tyr Asn Tyr Ser Lys Lys Tyr Ile $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gln Gly Lys Leu Xaa Leu Ile Ser Ser Leu Thr Tyr Arg Gly Asn Lys $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Thr Xaa Val Leu Gln Ile Gly Leu Gln Xaa His His Cys Ser Gly 35 40 45

<210> 1292

<211> 129.

<212> PRT

<213> Homo sapiens

<400> 1292

Gly Gly Ala Ser Asn Phe Leu Ser Trp Arg Glu Ser Ala Arg Trp Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Arg Gln Leu Arg Arg Thr Leu Ile Arg Leu Ser Phe Pro Ile Ser Cys 20 25 30

Gly Arg Ser His Ala Phe Gly Gly Cys Lys Met Ala Ala Thr Ser Gly $35 \hspace{1cm} 40 \hspace{1cm} 45$

Thr Asp Glu Pro Val Ser Gly Glu Leu Val Ser Val Ala His Ala Leu
50 55 60

Ser Leu Pro Ala Glu Ser Tyr Gly Asn Asp Pro Asp Ile Glu Met Ala 65 70 75 80

Trp Ala Met Arg Ala Met Gln His Ala Glu Val Tyr Tyr Lys Leu Ile $85 \ . \ 90 \ 95$

Ser Ser Val Asp Pro Gln Phe Leu Lys Leu Thr Lys Val Asp Asp Gln 100 105 110

Ile Tyr Ser Glu Phe Arg Lys Asn Phe Glu Thr Leu Arg Ile Asp Val 115 120 125

Leu Asp Pro Glu Glu Leu Lys Ser Glu Ser Ala Lys Glu Lys Trp Arg 130 135 140

Pro Phe Cys Leu Lys Phe Asn Gly Ile Val Glu Asp Phe Asn Tyr Gly 145 150 155 160

Thr Leu Leu Arg Leu Asp Cys Ser Gln Gly Tyr Thr Glu Glu Asn Thr 165 170 175

Ile Phe Ala Pro Arg Ile Gln Phe Phe Ala Ile Glu Ile Ala Arg Asn 180 185 190

```
Arg Glu Gly Tyr Asn Lys Ala Val Tyr Ile Ser Val Gln Asp Lys Glu
        195
                             200
Gly Glu Lys Gly Val Asn Asn Gly Gly Glu Lys Arg Ala Asp Ser Gly
                        215
Glu Glu Glu Asn Thr Lys Asn Gly Gly Glu Lys Gly Ala Asp Ser Gly
225
                    230
                                         235
                                                             240
Glu Glu Lys Glu Glu Gly Ile Asn Arg Glu Asp Lys Thr Asp Lys Gly
                                     250
Gly Glu Lys Gly Lys Glu Ala Asp Lys Glu Ile Asn Lys Ser Gly Glu
                                265
Lys Ala Met
        275
<210> 1293
<211> 263
<212> PRT
<213> Homo sapiens
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<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids
Gln Ile His Gly Gln Val Val Gly Thr Val Thr Cys Lys Cys Asp Leu
 1
                 5
                                                         15
Glu Gly Ile Met Pro Asn Val Thr Ile Ser Leu Ser Leu Pro Thr Xaa
Gly Ser Pro Leu Gln Asp Ile Leu Val His Pro Cys Val Thr Ser Leu
                            40
Asp Ser Ala Ile Leu Thr Ser Ser Ser Ile Asp Ala Met Asp Asp Ser
    50
```

Ala Phe Ser Gly Pro Tyr Lys Phe Pro Phe Thr Pro Pro Leu Glu Ser

75

70

Phe Asn Leu Cys Phe Xaa Thr Ser Gln Val Pro Val Pro Pro Ile Leu 85 90 95

Gly Phe Tyr Gln Met Lys Glu Glu Glu Val Gln Leu Arg Ile Thr Ile $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Asn Leu Lys Leu His Glu Ser Val Lys Asn Asn Phe Glu Phe Cys Glu 115 120 125

Ala His Ile Pro Phe Tyr Asn Arg Gly Pro Ile Thr His Leu Glu Tyr $130 \ \ 140 \ \$

Lys Thr Ser Phe Gly Gln Leu Glu Val Phe Arg Glu Lys Ser Leu Leu 145 150 160

Ile Trp Ile Ile Gly Gln Lys Phe Pro Lys Ser Met Glu Ile Ser Leu $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$

Ser Gly Thr Val Thr Phe Gly Ala Lys Ser His Glu Lys Gln Pro Phe

Asp Pro Ile Cys Thr Gly Glu Thr Ala Tyr Leu Lys Leu His Phe Arg \$195\$

Ile Leu Asp Tyr Thr Leu Thr Gly Cys Tyr Ala Asp Gln His Ser Val 210 215 220

Gln Val Phe Ala Ser Gly Lys Pro Lys Ile Ser Ala His Arg Lys Leu 225 230 235 240

Ile Ser Ser Asp Tyr Tyr Ile Trp Asn Ser Lys Ala Pro Ala Pro Val 245 250 255

Thr Tyr Gly Ser Leu Leu Leu 260

<210> 1294

<211> 120

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (89)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1294

Pro Thr Arg Pro Pro Thr Arg Pro Pro Thr Arg Pro Arg Ser Cys Leu

1 10 15

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Val Met Ser Gly Arg Gly Lys Gly Lys Gly Leu Gly Lys Gly Gly
              20
                                  25
 Ala Lys Arg His Arg Lys Val Leu Arg Asp Asn Ile Gln Gly Ile Thr
                              40
 Lys Pro Ala Ile Arg Arg Leu Ala Arg Arg Gly Gly Val Lys Arg Ile
                          55
 Ser Gly Leu Ile Tyr Glu Glu Thr Arg Gly Val Leu Lys Val Phe Leu
Glu Asn Val Ile Arg Asp Ala Val Xaa Tyr Thr Glu His Ala Lys Arg
                 85
                                      90
Lys Thr Val Thr Ala Met Asp Val Val Tyr Ala Leu Lys Arg Gln Gly
             100
                                105
Arg Thr Leu Tyr Gly Phe Gly Gly
       115
                            120
<210> 1295
<211> 174
<212> PRT
<213> Homo sapiens
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<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (155)
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<221> SITE
<222> (158)
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<220>
<221> SITE
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<222> (160) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (168) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1295 Lys Thr Gly Asn Gly Arg Val Tyr Pro His Pro Gln Asp Leu Leu Ala Ala Leu Pro Leu Ala Leu Val Leu Leu Ala Met Arg Leu Ala Phe Glu 25 Lys Ile His Trp Pro Ala Pro Glu Pro Val Xaa Xaa Cys Glu Gly Ser 35 45 Asp Gln Glu Ala Ser Glu Ala Gln Arg His Ala Gly Glu Thr Leu Pro His Gly Arg Ala Gln Ala Lys Glu Pro Gln Leu Ser Leu Leu Ala Ala Gln Cys Gly Leu Thr Leu Gln Gln Thr Gln Arg Trp Phe Arg Arg Arg 85 90 95 Arg Asn Gln Asp Arg Pro Gln Leu Thr Lys Lys Phe Cys Glu Ala Ser Trp Arg Phe Leu Phe Tyr Leu Ser Ser Phe Val Gly Gly Leu Ser Val 120 Leu Tyr His Glu Ser Trp Leu Trp Ala Pro Val Met Cys Trp Asp Arg 130 135 Tyr Pro Asn Gln Thr Leu Lys Pro Ser Leu Xaa Trp Trp Xaa Leu Xaa 145 150 155 Gly Ala Gly Phe Leu Thr Ser Xaa Cys Leu Ile Arg Cys Leu 165 170 <210> 1296 <211> 286 <212> PRT <213> Homo sapiens

 $\!<\!400\!>$ 1296 Ala His Ser Ser Ile Pro Ala Lys His Arg Asn Met Thr Glu Met Ser

1				5	•				10					15	
Phe	Leu	Ser	Ser 20		val	Leu	ı Val	. Gly 25		Leu	Met	Sei	Pro 30		Asp
Gln	Ser	G1y 35		Gly	Ala	Glu	40		Leu	Gly	Leu	Leu 45		Asp	Tyr
Leu	Glu 50		Ala	Lys	His	Phe 55		Pro	His	Gly	Phe 60	Ser	Ser	Asp	Lys
Ala 65		Ala	Gly	Ser	Ser 70	Glu	Trp	Leu	Ala	Val 75	Asp	Gly	Leu	Val	Ser 80
Pro	Ser	Asn	Asn	Ser 85		Glu	Asp	Ala	Phe 90		Gly	Thr	Asp	Trp 95	Met
Leu	Glu	Lys	Met 100		Leu	Lys	Glu	Phe 105	Asp	Leu	Asp	Ala	Leu 110	Leu	Gly
Ile	Asp	Asp 115		G1u	Thr	Met	Pro 120		Asp	Leu	Leu	Thr 125	Thr	Leu	Asp
Asp	Thr 130	Cys	Asp	Leu	Phe	Ala 135		Leu	Val	Gln	Glu 140	Thr	Asn	Lys	Gln
Pro 145	Pro	Gln	Thr	Val	Asn 150	Pro	Ile	Gly	His	Leu 155	Pro	Glu	Ser	Leu	Thr 160
Lys	Pro	Asp	Gln	Val 165	Ala	Pro	Phe	Thr	Phe 170	Leu	Gln	Pro	Leu	Pro 175	Leu
Ser	Pro	Gly	Val 180	Leu	Ser	Ser	Thr	Pro 185	Asp	His	Ser	Phe	Ser 190	Leu	Glu
Leu	Gly	Ser 195	Glu	Val	Asp	Ile	Thr 200	Glu	Gly	Asp	Arg	Lys 205	Pro	Asp	Tyr
Thr	Ala 210	Tyr	Va1	Ala	Met	Ile 215	Pro	Gln	Cys	Ile	Lys 220	Glu	Glu	Asp	Thr
Pro 225	Ser	Asp	Asn	Asp	Ser 230	Gly	Ile	Cys	Met	Ser 235	Pro	Glu	Ser	Tyr	Leu 240
Gly	Ser	Pro	Gln	His 245	Ser	Pro	Ser	Thr	Arg 250	Gly	Ser	Pro	Asn	Arg 255	Ser
Leu	Pro	Ser	Ser 260	Arg	Cys	Ser	Leu	Trp 265	Val	Cys	Pro	ser	G1n 270	Thr	Leu
Arg	Ser	Ser	Trp	Arg	Glu	Asp	Gly	Ser	Ser	Lys	Ser	Lys	Gly		

275 280 285

<210> 1297

<211> 169

<212> PRT

<213> Homo sapiens

<400> 1297

Ala Ala Arg Gly Arg Ala Ala Ala Glu His Pro Ala Gly Ala Asp Ser $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Met ala Ser Pro Asp Pro Pro Ala Thr Ser Tyr ala Pro Ser Asp Val 20 25 30

Pro Ser Gly Val Ala Leu Phe Leu Thr Ile Pro Phe Ala Phe Phe Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Pro Glu Leu Ile Phe Gly Phe Leu Val Trp Thr Met Val Ala Ala Thr 50 60

His Ile Val Tyr Pro Leu Clu Gln Gly Trp Val Met Tyr Val Ser Leu 65 70 75 80

Thr Ser Phe Leu Ile Ser Leu Met Phe Leu Leu Ser Tyr Leu Phe Gly \$85\$ 90 95

Phe Tyr Lys Arg Phe Glu Ser Trp Arg Val Leu Asp Ser Leu Tyr His $100 \hspace{1cm} 105 \hspace{1cm} 110$

Gly Thr Thr Gly Ile Leu Tyr Met Ser Ala Ala Val Leu Gln Val His 115 $$\rm 120$$

Ala Thr Ile Val Ser Glu Lys Leu Leu Asp Pro Arg Ile Tyr Tyr Ile 130 \$135\$

Asn Ser Ala Ala Ser Phe Phe Ala Phe Ile Ala Thr Leu Leu Tyr Ile 145 \$150\$

Leu His Ala Phe Ser Ile Tyr Tyr His 165

<210> 1298

<211> 164

<212> PRT

<213> Homo sapiens

<400> 1298

Ala Leu Arg Asn Glu Met Ala Val Leu Trp Arg Leu Ser Ala Val Cys
1 5 10 15

Gly Ala Leu Gly Gly Arg Ala Leu Leu Leu Arg Thr Pro Val Val Arg 20 25 30

Pro Ala His Ile Ser Ala Phe Leu Gln Asp Arg Pro Ile Pro Glu Trp 35 40 45

Cys Gly Val Gln His Ile His Leu Ser Pro Ser His His Ser Gly Ser 50 55 60

Lys Ala Ala Ser Leu His Trp Thr Ser Glu Arg Val Val Ser Val Leu 65 70 75 80

Leu Leu Gly Leu Leu Pro Ala Ala Tyr Leu Asn Pro Cys Ser Ala Met 85 90 95

Asp Tyr Ser Leu Ala Ala Ala Leu Thr Leu His Gly His Trp Gly Leu 100 105 110

Gly Gln Val Val Thr Asp Tyr Val His Gly Asp Ala Leu Gln Lys Ala 115 120 125

Ala Lys Ala Gly Leu Leu Ala Leu Ser Ala Leu Thr Phe Ala Gly Leu 130 \$135\$

Cys Tyr Phe Asn Tyr His Asp Val Gly Ile Cys Lys Ala Val Ala Met 145 150 155 160

Leu Trp Lys Leu

<210> 1299

<211> 717

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (147)

<223> Kaa equals any of the naturally occurring L-amino acids

<220>

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<220>
<221> SITE
<222> (232)
<223> Kaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (389)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (671)
<223> Xaa equals any of the naturally occurring L-amino acids
Val Cys Leu Gln Arg Asp Ala Pro Arg Gly Gln Ala Arg Ser Pro Gly
Glu Ala Gln Glu Pro Glu Glu Leu Ala Arg Arg Gln Arg Arg His Pro
Glu Leu Ser Gln Gly Glu Xaa Val Ala Ser Val Ile Ile Tyr Arg Thr
         35
                             40
                                                 45
Leu Ala Gly Leu Leu Pro His Asn Tyr Asp Pro Asp Lys Arg Ser Leu
                         55
Arg Val Pro Lys Arg Pro Ile Ile Asn Thr Pro Val Val Ser Ile Ser
Val His Asp Asp Glu Glu Leu Leu Pro Arg Ala Leu Asp Lys Pro Val
                 85
                                     90
Thr Val Gln Phe Arg Leu Leu Glu Thr Glu Glu Arg Thr Lys Pro Ile
            100
                                105
                                                    110
Cys Val Phe Trp Asn His Ser Ile Leu Val Ser Gly Thr Gly Gly Trp
                            120
```

Ser Ala Arg Gly Cys Glu Val Val Phe Arg Asn Glu Ser His Val Ser

135

Cys 145	Gln	Xaa	Asn	His	Met 150		Ser	Phe	Ala	Val 155		Met	Asp	Val	Ser 160
Arg	Arg	Glu	Asn	Gly 165		Ile	Leu	Pro	Leu 170		Thr	Leu	Thr	Tyr 175	Val
Ala	Leu	Gly	Val 180	Xaa	Leu	Ala	Ala	Leu 185	Leu	Leu	Thr	Phe	Phe 190	Phe	Leu
Thr	Leu	Leu 195	Arg	Ile	Leu	Arg	Ser 200	Asn	Gln	His	Gly	Ile 205		Arg	Asn
Leu	Thr 210	Ala	Ala	Leu	Gly	Leu 215	Ala	Gln	Leu	Val	Phe 220	Leu	Leu	Gly	Ile
Asn 225	Gln	Ala	Asp	Leu	Pro 230	Phe	Xaa	Cys	Thr	Val 235	Ile	Ala	Ile	Leu	Leu 240
His	Phe	Leu	Tyr	Leu 245	Cys	Thr	Phe	Ser	Trp 250	Ala	Leu	Leu	Glu	Ala 255	Leu
His	Leu	Tyr	Arg 260	Ala	Leu	Thr	Glu	Val 265	Arg	Asp	Val	Asn	Thr 270	Gly	Pro
Met	Arg	Phe 275	Tyr	Tyr	Met	Leu	Gly 280	Trp	Gly	Val	Pro	Ala 285	Phe	Ile	Thr
Gly	Leu 290	Ala	Val	Gly	Leu	Asp 295	Pro	Glu	Gly	Tyr	Gly 300	Asn	Pro	Asp	Phe
Cys 305	Trp	Leu	Ser	Ile	Tyr 310	Asp	Thr	Leu	Ile	Trp 315	Ser	Phe	Gly	Gly	Pro 320
Val	Ala	Phe	Ala	Val 325	Ser	Met	Ser	Val	Phe 330	Leu	Tyr	Ile	Leu	Ala 335	Ala
Arg	Ala	Ser	Cys 340	Ala	Ala	Gln	Arg	Gln 345	Gly	Phe	Glu	Lys	Lys 350	Gly	Pro
Val	Ser	Gly 355	Leu	Gln	Pro	Ser	Phe 360	Ala	Val	Leu	Leu	Leu 365	Leu	Ser	Ala
Thr	Trp 370	Leu	Leu	Ala	Leu	Leu 375	Ser	Val	Asn	Xaa	Asp 380	Thr	Leu	Leu	Phe
His 385	Tyr	Leu	Phe	Xaa	Thr 390	Cys	Asn	Cys	Ile	Gln 395	Gly	Pro	Phe	Ile	Phe 400
Leu	Ser	Tyr		Val 405	Leu	Ser	Lys	Glu	Val 410	Arg	Lys	Ala	Leu	Lys 415	Leu

Ala	Cys	Ser	Arg 420		Pro	Ser	Pro	425		Ala	Leu	Thr	Thr 430	Lys	Ser
Thr	Leu	Thr 435	Ser	Ser	Tyr	Asn	Cys 440		Ser	Pro	Tyr	Ala 445		Gly	Arg
Leu	Tyr 450	Gln	Pro	Tyr	Gly	Asp 455		Ala	Gly	Ser	Leu 460		Ser	Thr	Ser
Arg 465	Ser	Gly	Lys	Ser	Gln 470	Pro	Ser	Tyr	Ile	Pro 475		Leu	Leu	Arg	Glu 480
Glu	ser	Ala	Leu	Asn 485	Pro	Gly	Gln	Gly	Pro 490		Gly	Leu	Gly	Asp 495	Pro
Gly	Ser	Leu	Phe 500	Leu	Glu	Gly	Gln	Asp 505		Gln	His	Asp	Pro 510	Asp	Thr
Asp	Ser	Asp 515	Ser	Asp	Leu	Ser	Leu 520	Glu	Asp	Asp	Gln	Ser 525	Gly	Ser	Tyr
Ala	ser 530	Thr	His	Ser	Ser	Asp 535	Ser	Glu	Glu	Glu	Glu 540	Glu	Glu	Glu	Glu
Glu 545	Glu	Ala	Ala	Phe	Pro 550	Gly	Glu	Gln	Gly	Trp 555	Asp	Ser	Leu	Leu	Gly 560
Pro	Gly	Ala	Glu	Arg 565	Leu	Pro	Leu	His	Ser 570	Thr	Pro	Lys	Asp	Gly 575	Gly
Pro	Gly	Pro	Gly 580	Lys	Ala	Pro	Trp	Pro 585	Gly	Asp	Phe	Gly	Thr 590	Thr	Ala
Lys	Glu	Ser 595	Ser	Gly	Asn	Gly	Ala 600	Pro	Glu	Glu	Arg	Leu 605	Arg	Glu	Asn
Gly	Asp 610	Ala	Leu	Ser	Arg	Glu 615	Gly	Ser	Leu	Gly	Pro 620	Leu	Pro	Gly	Ser
Ser 625	Ala	Gln	Pro	His	Lys 630	Gly	Ile	Leu	Lys	Lys 635	Lys	Cys	Leu	Pro	Thr 640
Ile	Ser	Glu		Ser 645	Ser	Leu	Leu	Arg	Leu 650	Pro	Leu	Glu	Gln	Cys 655	Thr
Gly	Ser	Ser	Arg 660	Gly	Ser	Ser	Ala	Ser 665	Glu	Gly	Ser	Arg	Gly 670	Xaa	Pro
Pro		Arg 675	Pro	Pro	Pro	Arg	G1n 680	Ser	Leu	Gln	Glu	Gln 685	Leu	Asn	Gly

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Val Met Pro Ile Ala Met Ser Ile Lys Ala Gly Thr Val Asp Glu Asp
    690
 Ser Ser Gly Ser Glu Phe Leu Phe Phe Asn Phe Leu His
                     710
                                        715
<210> 1300
<211> 145
<212> PRT
<213> Homo sapiens
<220>
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<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (125)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1300
Ala Ser Arg Asn Ala Asp Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln
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1 10 15 Ile Arg Pro Ser Gly Asn Leu Pro Xaa Ala Thr Lys Arg Arg Xaa Gly 20 25 Arg Leu Val Ile Val Asn Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu Ile Pro Ala Trp Asp Gly Pro Arg Val Leu 75 Glu Arg Ala Leu Pro Pro Leu Pro Ala Arg Pro Pro Pro Ser Trp Ser Pro Arg Arg Asn Leu Pro Pro Gly Ser Thr Ala Leu Ser Pro Xaa Xaa 105 Pro Ser Arg Xaa Pro Ala Pro Ser Thr Thr Ala Xaa Xaa Pro Pro Ala 115 Pro Asn Gly Ser Gly Pro Pro Ala Leu Pro Pro Thr Asp Pro Pro Lys 135 Gly 145 <210> 1301 <211> 68 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (67) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (68) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1301 Thr Arg Cys Leu Leu Lys Ile Gln Lys Ile Ser Gln Val Trp Trp His 10

Asn Ala Val Ile Pro Ala Thr Gln Glu Ala Glu Ala Gly Glu Ser Leu

20 25 30

Glu Pro Gly Arg Trp Glu Val Thr Val Ser Gln Val Cys Ala Thr Ala 35 40 45

Phe Gln Pro Gly Leu Ile Glu Trp Asp Phe Arg Leu Gln Lys Lys Lys $50 \ \ 55 \ \ \ 60$

Lys Lys Xaa Xaa 65

<210> 1302

<211> 60 <212> PRT

<213> Homo sapiens

<400> 1302

Lys Tyr Pro Val Pro Arg Pro Leu Phe Thr His Ala Cys Lys Phe Thr 1 51015

Gly Lys Thr Leu Glu Thr Asn Val Leu Ser Ser Thr Glu Ile Trp Pro \$20\$

Ser Ser Leu Phe Leu Asn Cys Ser Leu Cys Val Arg His Ile Cys Leu 35 40 45

Ile Pro His Ser Ala Leu Thr Phe Arg Gln Ile Arg 50 55 60

<210> 1303

<211> 107

<212> PRT

<213> Homo sapiens

<400> 1303

Arg Ser Asp Ser Arg Ser Thr His Ala Ser Gly Arg Leu Arg Thr Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gln Leu Ala Pro Pro Gly Leu Gly Arg Thr Arg Ser Gly Phe Ser Ser 20 25 30

Cys Arg Pro Tyr Gly Ala Val Phe Ser Leu Ser Arg Gly Val Arg Ala 35 40 45

Ser His Ala Gly Pro Gly Arg Glu Lys Ser Lys Ala Cys Arg Gly Cys 50 55 60 Arg Glu Lys Thr Lys Arg Gly Cys Ile Ser Gly Asn Phe Arg Cys Ser 65 70 75 80

Ile Cys Ala Arg Lys Glu Lys Glu Lys Gly Lys Asn Arg Lys Thr Asn 85 90 95

Cys Tyr Ile Arg Ala Pro Thr Arg Arg Trp Thr

<210> 1304

<211> 69

<212> PRT

<213> Homo sapiens

<400> 1304

Lys His Ile Phe Trp Leu Ala Glu Lys Asn Lys Thr Lys Leu Leu Phe 1 5 10 15

Leu Phe Leu Ala Leu Arg Val Tyr Ser Lys Arg Asp Phe Phe Glu Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Phe Leu Tyr Tyr Phe Ser Phe Asn Cys Ala Val Val His Glu Thr Glu 35 40 45

Leu Cys Phe Ser Val Arg Asp Gly Lys Gly Phe Phe Ser Ile Ser 50 55 60

Phe Met Cys Gly Ile

<210> 1305

<211> 75

<212> PRT

<213> Homo sapiens

<400> 1305

Lys Asn Val Ile Gly Thr Ile Asn Lys Asp Cys Glu Arg Leu Phe Lys $1 \hspace{1.5cm} 1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Cys Glu Ser Leu Lys Pro Ile Ser Gln Gly Val Pro Cys Leu Asn 20 25 30

Leu Leu Leu Phe Pro Gln Arg Thr Lys Pro Val His Lys Leu Pro Lys 35 40 45

Leu Pro Phe Trp Arg Trp Lys Leu Thr Arg Arg Glu Gly Leu Leu Leu 50 55 60

```
Glu Ser Ile Gln Tyr Lys Gln Ile Ile Leu Pro
 65
 <210> 1306
 <211> 44
 <212> PRT
 <213> Homo sapiens
 <400> 1306
 Pro Thr Trp Arg Asn Pro Val Ser Thr Lys Asn Thr Lys Ile Ser Trp
Ala Leu Trp Arg Ala Pro Val Ile Pro Ala Thr Trp Glu Ala Glu Ala
             20
                                 25
Glu Glu Ser Leu Lys Pro Arg Arg Arg Arg Leu Gln
         35
<210> 1307
<211> 105
<212> PRT
<213> Homo sapiens
<400> 1307
Arg Leu Cys Ala Phe Asn Lys Arg Met Thr Phe Gln Phe Asn Phe Thr
                                   10
Ile Glu Asp His Leu Glu Asn Glu Leu Thr Pro Ile Arg Asp Gly Ala
             20
Leu Thr Leu Asp Ser Ser Lys Glu Leu Ser Val Ser Glu Ser Gln Lys
                            40
Gly Glu Glu Arg Asp Arg Lys Cys Ser Ala Glu Gln Phe Asp Leu Pro
     50
                       55
Gln Asp His Leu Trp Glu His Lys Ser Met Glu Asn Ala Ala Pro Ser
65
                    70
Gln Asp Thr Asp Ser Pro Leu Ser Ala Ala Ser Ser Ser Arg Asn Leu
                                   90
Gly Ala Thr Trp Glu Asn Ser Pro Pro
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105

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<210> 1308
 <211> 75
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (13)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 1308
 Gly Arg Ala His Ala Ile Thr Val Ser Val Ala Asn Xaa Lys Ala Leu
 Ala Lys Cys Glu Lys Tyr Met Leu Thr His Gln Glu Leu Ala Ser Asp
                                 25
 Gly Glu Ile Glu Thr Lys Leu Ile Lys Gly Asp Ile Tyr Lys Thr Arg
Gly Gly Gln Ser Val Gln Phe Thr Asp Ile Glu Thr Leu Lys Gln
                        55
Glu Ser Pro Asn Gly Val Leu Trp Leu Trp Arg
 65
                    70
<210> 1309
<211> 231
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (178)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1309
Leu Glu Arg Phe Ala Ser Arg Arg Pro Gln Val Leu Ala Val Arg Thr
                 5
Val Cys Asp Leu Val Leu Gly Lys Met Asp Lys Asp Cys Glu Met Lys
             20
                                25
Arg Thr Thr Leu Asp Ser Pro Leu Gly Lys Leu Glu Leu Ser Gly Cys
Glu Gln Gly Leu His Glu Ile Lys Leu Leu Gly Lys Gly Thr Ser Ala
                        55
```

Ala Asp Ala Val Glu Val Pro Ala Pro Ala Ala Val Leu Gly Gly Pro
65 70 75 80

Glu Pro Leu Met Gln Cys Thr Ala Trp Leu Asn Ala Tyr Phe His Gln 85 90 95

Pro Glu Ala Ile Glu Glu Phe Pro Val Pro Ala Leu His His Pro Val

Phe Gln Glu Ser Phe Thr Arg Gln Val Leu Trp Lys Leu Leu Lys 115 120 125

Val Val Lys Phe Gly Glu Val Ile Ser Tyr Gln Gln Leu Ala Ala Leu 130 \$135\$

Ala Gly Asn Pro Lys Ala Ala Arg Ala Val Gly Gly Ala Met Arg Gly 145 \$150\$

Asn Pro Val Pro Ile Leu Ile Pro Cys His Arg Val Val Cys Ser Ser 165 170 175

Gly Xaa Val Gly Asn Tyr Ser Gly Gly Leu Ala Val Lys Glu Trp Leu 180 $$185\ \ \, 190\ \ \,]$

Leu Ala His Glu Gly His Arg Leu Gly Lys Pro Gly Leu Gly Gly Ser 195 200 205

Ser Gly Leu Ala Gly Ala Trp Leu Lys Gly Ala Gly Ala Thr Ser Gly 210 215 220

Ser Pro Pro Ala Gly Arg Asn 225 230

<210> 1310

<211> 110 <212> PRT

<213> Homo sapiens

<400> 1310

Pro Val Leu Thr Pro Ala Thr Leu Ile Tyr Phe Ser Ile Asn Cys Leu 1 5 10 15

Ser Gly Ser Gln Ser Trp Asn His His Ser Gly Arg Gly Leu Ala Cys 20 25 30

Thr Arg Met Phe Glu Val Val Ser Ser Thr Ser Gly Leu Ser Ile Cys

Gly Glu Arg Cys Val Ala Ile Ala Ala Gly Leu His Gly His Leu Ser $50 \hspace{1cm} 55 \hspace{1cm} 60$

Thr Thr Arg Val Leu Trp Thr Trp Ser Asn His Arg Glu Arg Leu Arg 65 70 75 80

Val Glu Phe Cys Leu Cys Arg Gly Thr Gly Ala Val Trp Trp Glu Arg 85 90 95

Pro Val Pro Gly Glu Thr Leu Glu Thr Leu Arg Glu Pro Leu
100 105 110

<210> 1311

<211> 131

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1311

Ala Val Val Thr Ala Xaa Gln Val Pro Lys Gln Val Ser Trp Val Gln 1 5 10 15

Gln Asp Thr Pro Pro Phe Gln Gly Ser Trp Tyr Arg Gln Lys Gln Glu 20 25 30

Trp Val Leu Ser Cys Cys Arg His Thr Ala Val Val Phe Leu Gln Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Lys Ser Lys Thr Ser Ser Leu Gly Tyr Leu Ser Ser Phe Met Lys Gln 65 70 75 80

Val Leu Arg Thr Arg Lys Asn His Leu Pro Pro Ser Phe Val Arg Gln 85 90 95

Asn Gln Val Lys Gly Asn Met Leu Glu Asn Val Pro Arg Glu Asp Thr \$100\$ \$105\$

Ser Thr Phe Ala Leu Ser Asn Pro Ser Ser Glu Lys Gly Val Pro Trp 115 120 125

Pro Gln Lys Glu Leu Pro Ser Phe Gly Glu Glu 130 135

<21 <21	10> 1 11> 2 12> E 13> F	31 RT	sapi	ens											
			Glu	Val		Pro	Pro	Glu	Glu 10		Gln	Glu	Ala	Glu 15	
Pro	Lys	Ala	Arg 20		Leu	Arg	Ser	Lys 25		Leu	Cys	His	Asp 30	Glu	Ile
Glu	Asn	Leu 35	Leu	Asp	Ser	Asp	His 40		Glu	Leu	Ile	Gly 45		Tyr	Ser
Lys	Ala 50		Leu	Leu	Gln	Thr 55		Asp	Gly	Lys	His 60		Asp	Leu	Lys
Tyr 65		Ser	Pro	Glu	Thr 70	Met	Val	Ala	Leu	Leu 75		Gly	Lys	Phe	Ser 80
Asn	Ile	Val	Asp	Lys 85	Phe	Val	Ile	Val	Asp 90	Cys	Arg	Tyr	Pro	Tyr 95	Glu
Tyr	Glu	Gly	Gly 100	His	Ile	Lys	Thr	Ala 105	Val	Asn	Leu	Pro	Leu 110	Glu	Arg
Asp	Ala	Glu 115	Ser	Phe	Leu	Leu	Lys 120	Ser	Pro	Ile	Ala	Pro 125	Cys	Ser	Leu
Asp	Lys 130	Arg	Val	Ile	Leu	Ile 135	Phe	His	Cys	Glu	Phe 140	Ser	Ser	Glu	Arg
Gly 145	Pro	Arg	Met	Cys	Arg 150	Phe	Ile	Arg	Glu	Arg 155	Asp	Arg	Ala	Val	Asn 160
Asp	Tyr	Pro	Ser	Leu 165	Tyr	Tyr	Pro	Glu	Met 170	Tyr	Ile	Leu	Lys	Gly 175	Gly
Tyr	Lys	Glu	Phe 180	Phe	Pro	Gln	His	Pro 185	Asn	Phe	Суз	Glu	Pro 190	Gln	Asp
Tyr	Arg	Pro 195	Met	Asn	His	Glu	Ala 200	Phe	Lys	Asp	Glu	Leu 205	Lys	Thr	Phe
Arg	Leu 210	Lys	Thr	Arg	Ser	Trp 215	Ala	Gly	Glu	Arg	Ser 220	Arg	Arg	Glu	Leu

Cys Ser Arg Leu Gln Asp Gln 225 230

<210> 1313

<211> 312

<212> PRT

<213> Homo sapiens

<400> 1313

Ala Ala Val Ile Pro Ser Leu Gly Phe Leu Pro Gly Leu Pro Arg Ala
1 5 10 15

Arg Ser Arg Ala Gly Pro Glu Gln Pro Lys Met Ala Asp Phe Asp Asp 20 25 30

Arg Val Ser Asp Glu Glu Lys Val Arg Ile Ala Ala Lys Phe Ile Thr $35 \hspace{1cm} 40 \hspace{1cm} 45$

His Ala Pro Pro Gly Glu Phe Asn Glu Val Phe Asn Asp Val Arg Leu 50 60

Leu Leu Asn Asn Asn Asn Leu Leu Arg Glu Gly Ala Ala His Ala Phe 65 70 75 80

Ala Gln Tyr Asn Met Asp Gln Phe Thr Pro Val Lys Ile Glu Gly Tyr \$85\$ 90 95

Glu Asp Gln Val Leu Ile Thr Glu His Gly Asp Leu Gly Asp Ser Arg $100 \\ 105 \\ 110$

Phe Leu Asp Pro Arg Asn Lys Ile Ser Phe Lys Phe Asp His Leu Arg 115 120 125

Lys Glu Ala Ser Asp Pro Gln Pro Glu Glu Ala Asp Gly Gly Leu Lys 130 135 140

Ser Trp Arg Glu Ser Cys Asp Ser Ala Leu Arg Ala Tyr Val Lys Asp 145 150 150 160

His Tyr Ser Asn Gly Phe Cys Thr Val Tyr Ala Lys Thr Ile Asp Gly
165 170 175

Gln Gln Thr Ile Ile Ala Cys Ile Glu Ser His Gln Phe Gln Pro Lys 180 185 190

Asn Phe Trp Asn Gly Arg Trp Arg Ser Glu Trp Lys Phe Thr Ile Thr 195 200 205

Pro Pro Thr Ala Gln Val Val Gly Val Leu Lys Ile Gln Val His Tyr

210 215 220 Tyr Glu Asp Gly Asn Val Gln Leu Val Ser His Lys Asp Val Gln Asp 225 230 235 Ser Leu Thr Val Ser Asn Glu Ala Gln Thr Ala Lys Glu Phe Ile Lys 250 Ile Ile Glu Asn Ala Glu Asn Glu Tyr Gln Thr Ala Ile Ser Glu Asn 260 265 Tyr Gln Thr Met Ser Asp Thr Thr Phe Lys Ala Leu Arg Arg Gln Leu 275 280 Pro Val Thr Arg Thr Lys Ile Asp Trp Asn Lys Ile Leu Ser Tyr Lys 295 300 Ile Gly Lys Glu Met Gln Asn Ala 305 310 <210> 1314 <211> 260 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (234) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (246) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (249) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (256) <223> Xaa equals any of the naturally occurring L-amino acids Ala Phe Asn Ala Leu Val Thr Phe Cys Ile Arg Asp Leu Ile Gly Cys

10

Leu Gln Lys Leu Leu Phe Gly Lys Val Ala Lys Asp Ser Ser Arg Met Leu Gln Pro Ser Ser Ser Pro Leu Trp Gly Lys Leu Arg Val Asp Ile Lys Ala Tyr Leu Gly Ser Ala Ile Gln Leu Val Ser Cys Leu Ser Glu 50 55 Thr Thr Val Leu Ala Ala Val Leu Arg His Ile Ser Val Leu Val Pro 75 Cys Phe Leu Thr Phe Pro Lys Gln Cys Arg Met Leu Leu Lys Arg Met 90 Val Val Val Trp Ser Thr Gly Glu Glu Ser Leu Arg Val Leu Ala Phe 100 Leu Val Leu Ser Arg Val Cys Arg His Lys Lys Asp Thr Phe Leu Gly 115 120 Pro Val Leu Lys Gln Met Tyr Ile Thr Tyr Val Arg Asn Cys Lys Phe 135 Thr Ser Pro Gly Ala Leu Pro Phe Ile Ser Phe Met Gln Trp Thr Leu 150 155 Thr Glu Leu Leu Ala Leu Glu Pro Gly Val Ala Tyr Gln His Ala Phe Leu Tyr Ile Arg Gln Leu Ala Ile His Leu Arg Asn Ala Met Thr Thr 185 Arg Lys Lys Glu Thr Tyr Gln Ser Val Tyr Asn Trp Gln Tyr Val His 200 Cys Leu Phe Leu Trp Cys Arg Val Leu Ser Thr Ala Gly Pro Ser Glu 210 215 Ala Ser Ser Pro Trp Ser Asn Pro Leu Xaa Pro Ser His His Trp Leu 225 230 Tyr Gln Ala His Pro Xaa Cys Pro Xaa Leu Thr Arg Cys Glu Cys Xaa 250 Ala Ser Val Ala

<210> 1315

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<211> 194
<212> PRT
<213> Homo sapiens
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<221> SITE
<222> (158)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (160)
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<222> (175)
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<221> SITE
<222> (183)
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<221> SITE
<222> (189)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (193)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1315
Arg Ser Arg Leu Trp Ala Pro Val Arg Glu Ser His Thr Tyr Leu Arg
                  5
                                     10
Met Pro Gly Leu Ser Cys Arg Phe Tyr Gln His Lys Phe Pro Glu Val
             20
                                                     30
Glu Asp Val Val Met Val Asn Val Arg Ser Ile Ala Glu Met Gly Ala
Tyr Val Ser Leu Leu Glu Tyr Asn Asn Ile Glu Gly Met Ile Leu Leu
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55

Pro Gly Tyr Gly Ala Tyr Asp Ala Phe Lys His Ala Ala Xaa Xaa Pro 165 170 175 Ser Asn Phe Gly Lys Val Xaa Ile Gly Met Lys Ile Xaa Arg Glu Arg

185

190

Xaa His

<210> 1316

<220>

180

<211> 59
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (8)
<2213 Saa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (12)
<221> SITE
<222> (12)
<221> SITE
<222> (12)
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<222> (23)
<221> Saa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (23)

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<221> SITE
 <222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
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<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1316
Ala Lys Ile Ser Gln Glu Lys Xaa Phe His Lys Xaa Met Ser Ser Val
Lys Ala Arg Thr Gly His Xaa Xaa Phe Phe Cys Gly Gly Met Ser Ser
                                 25
Val Lys Xaa Gly Gln Gly Ile Phe Thr Ser Phe Xaa Ile Leu Gln Leu
         35
                             40
Leu Gln Ala Ile Trp Ala Xaa Thr Cys Xaa Ser
     50
                        55
<210> 1317
<211> 194
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
Gly Cys Gly Asp Xaa Arg Ala Ala Thr Thr Thr Ala Leu Ile Ser Val
```

1 5 10 15

Val Thr Thr Ala Ser Ala Gly Gly Glu Asp Glu Ser Ser Arg Ile Glu 20 25 30

Leu Gly Asp Val Thr Pro His Asn Ile Lys Gln Leu Lys Arg Leu Asn $35 \hspace{1cm} 40 \hspace{1cm} 45$

Glm Val Ile Phe Pro Val Ser Tyr Asn Asp Lys Phe Tyr Lys Asp Val 50 55 60

Leu Glu Val Gly Glu Leu Ala Lys Leu Ala Tyr Phe Asn Asp Ile Ala 65 70 75 80

Val Gly Ala Val Cys Cys Arg Val Asp His Ser Gln Asn Gln Lys Arg

Leu Tyr Ile Met Thr Leu Gly Cys Leu Ala Pro Tyr Arg Arg Leu Gly 100 105 110

Ile Gly Thr Lys Met Leu Asn His Val Leu Asn Ile Cys Glu Lys Asp 115 120 125

Gly Thr Phe Asp Asn Ile Tyr Leu His Val Gln Ile Ser Asn Glu Ser 130 135 140

Ala Ile Asp Phe Tyr Arg Lys Phe Gly Phe Glu Ile Ile Glu Thr Lys 145 150 150 155 160

Lys Asn Tyr Tyr Lys Arg Ile Glu Pro Ala Asp Ala His Val Leu Gln \$165\$

Lys Asn Leu Lys Val Pro Ser Gly Gln Asn Ala Asp Val Gln Lys Thr 180 185 190

Asp Asn

<210> 1318

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

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<221> SITE
 <222> (41)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 1318
 Thr His Leu Phe Val Leu Leu Pro Xaa Asp Thr Phe Ser Thr Ser Cys
Pro Ser Thr Val Arg His Ile Gln Ala Pro Arg Ser Trp Ser Pro Asn
              20
                                25
Thr Leu Lys Asn His Glu Phe Ile Xaa Met Val Ser Gln Ser Pro Asn
         35
 Gln Pro Asn Gln Thr Cys Tyr Leu Val Leu Leu Gly
                         55
<210> 1319
<211> 106
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (61)
<223> Kaa equals any of the naturally occurring L-amino acids
<400> 1319
Ala Arg Pro Pro Ala Ala Arg Thr Gly Val Ala Gly Gly Gly Ala Pro
Val Arg Lys Pro Gly Ile Arg Gly His Asp Gly Ala Gly Pro Arg Leu
             20
Leu Ala Ala Pro Arg Pro Pro Trp Pro Ser Ala Gly Val Gly Gln Lys
                                                45
His Ser Thr Leu Arg Lys Gly Thr Xaa Arg Ala Arg Xaa Cys Val Pro
Gly Leu Ser Glu Gln Arg Cys Glu Asp Gln Gln Arg Glu Glu Ile Pro
65
                    70
```

Ser Ser Arg Gly Cys His Cys Leu Pro Pro His Leu Ser Pro Ser Thr

85 90 95

Val Ile Phe Phe Ile Tyr Ile Met Thr His 100 105

<210> 1320

<211> 402 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1320

Gly Thr Arg Glu Pro Xaa Leu Leu Ala Glu Leu Lys Pro Gly Arg Pro
1 5 10 15

His Gln Phe Asp Trp Lys Ser Ser Cys Glu Thr Trp Ser Val Ala Phe

Ser Pro Asp Gly Ser Trp Phe Ala Trp Ser Gln Gly His Cys Ile Val \$35\$

Glu Ala Lys Ser Arg Ser Ser Lys Asn Glu Thr Lys Gly Arg Gly Ser 65 70 75 80

Pro Lys Glu Lys Thr Leu Asp Cys Gly Gln Ile Val Trp Gly Leu Ala 85 90 95

Phe Ser Pro Trp Pro Ser Pro Pro Ser Arg Lys Leu Trp Ala Arg His

His Pro Gln Val Pro Asp Val Ser Cys Leu Val Leu Ala Thr Gly Leu
115 120 125

Asn Asp Gly Gln Ile Lys Ile Trp Glu Val Gln Thr Gly Leu Leu Lau 130 140

Leu Asn Leu Ser Gly His Gln Asp Val Val Arg Asp Leu Ser Phe Thr 145 150 155 160

Pro Ser Gly Ser Leu Ile Leu Val Ser Ala Ser Arg Asp Lys Thr Leu 165 170 175 Arg Ile Trp Asp Leu Asn Lys His Gly Lys Gln Ile Gln Val Leu Ser \$180\$

Gly His Leu Gln Trp Val Tyr Cys Cys Ser Ile Ser Pro Asp Cys Ser 195 200 205

Met Leu Cys Ser Ala Ala Gly Glu Lys Ser Val Phe Leu Trp Ser Met 210 215 220

Arg Ser Tyr Thr Leu Ile Arg Lys Leu Glu Gly His Gln Ser Ser Val 225 230 235 240

Val Ser Cys Asp Phe Ser Pro Asp Ser Ala Leu Leu Val Thr Ala.Ser $245 \hspace{1.5cm} 255 \hspace{1.5cm} 255 \hspace{1.5cm}$

Tyr Asp Thr Asn Val Ile Met Trp Asp Pro Tyr Thr Gly Glu Arg Leu 260 265 270

Arg Ser Leu His His Thr Gln Val Asp Pro Ala Met Asp Asp Ser Asp 275 280 285

Val His Ile Ser Ser Leu Arg Ser Val Cys Phe Ser Pro Glu Gly Leu 290 295 300

Tyr Leu Ala Thr Val Ala Asp Asp Arg Leu Leu Arg Ile Trp Ala Leu 305 310 315 320

Glu Leu Lys Thr Pro Ile Ala Phe Ala Pro Met Thr Asn Gly Leu Cys \$325\$ \$330\$ \$335

Cys Thr Phe Phe Pro His Gly Gly Val Ile Ala Thr Gly Thr Arg Asp $340 \hspace{1cm} 345 \hspace{1cm} 350$

Gly His Val Gln Phe Trp Thr Ala Pro Arg Val Leu Ser Ser Leu Lys $355 \hspace{1.5cm} 360 \hspace{1.5cm} 365$

His Leu Cys Arg Lys Ala Leu Arg Ser Phe Leu Thr Thr Tyr Gln Val 370 375 380

Leu Ala Leu Pro Ile Pro Lys Lys Met Lys Glu Phe Leu Thr Tyr Arg 385 390 395 400

Thr Phe

<210> 1321

<211> 88

<212> PRT

<213> Homo sapiens

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<400> 1321
 Val Trp Gln Gly Thr Leu Leu Ala Ser Pro Pro Arg Arg Glu Val
 Asp Met Thr Ser Pro Pro Pro His Gln Gly Trp Glu Gln Arg Gly Cys
                                  25
 Gly Glu Ser Gln Val Pro Leu Ala Leu Ser Arg Val Phe Ser Thr Ser
          35
                             40
His Tyr Cys Leu Leu Leu Val Ala Asn Gln Ser Ile Phe Phe Pro Cys
     50
                         55
 Leu Trp Ala Val Glu Ser Ala Ala Gly Cys Thr Leu His Leu Pro Thr
                                         75
Glu Leu Gly Lys Glu Asp Asn Gln
                 85
<210> 1322
<211> 284
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (232)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (237)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (250)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (262)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (265)
<223> Xaa equals any of the naturally occurring L-amino acids
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<22 <22 <40	1> s 2> (3> x	269) aa e 322	qual							ccur					
Arg 1		Arg	Gly	Gly 5		Val	Gly	Ala	Tyr 10	Glu	His	Pro	Gly	Ser 15	Ser
Leu	Phe	Pro	Glu 20		Pro	Asn	Asp	Tyr 25		Phe	Ser	His	Leu 30	Pro	Leu
His	Ser	Gln 35		Gln	Val	Arg	Ala 40	Pro	Ile	Pro	Met	Val 45	Pro	Val	Gly
Gly	Ile 50		Met	Val	His	Ser 55	Met	Pro	Pro	Ala	Leu 60	Ser	Ser	Leu	His
Pro 65		Pro	Thr	Leu	Pro 70	Leu	Pro	Met	Glu	Gly 75	Phe	Glu	Glu	Lys	Lys 80
Gly	Ala	Ser	Gly	Glu 85	Ser	Phe	Ser	Lys	Asp 90	Pro	Tyr	Val	Leu	Ser 95	Lys
Gln	His	Gl u	Lys 100	Arg	Gly	Pro	His	Ala 105	Leu	Gln	Ser	Ser	Gly 110	Pro	Pro
Ser	Thr	Pro 115	Ser	Ser	Pro	Arg	Leu 120	Leu	Met	Lys	Gln	Ser 125	Thr	Ser	Glu
Asp	Ser 130	Leu	Asn	Ala	Thr	Glu 135	Arg	Glu	Gln	Glu	Glu 140	Asn	Ile	Gln	Thr
Cys 145	Thr	Lys	Ala	Ile	Ala 150	Ser	Leu	Arg	Ile	Ala 155	Thr	Glu	Glu	Ala	Ala 160
Leu	Leu	Gly	Pro	Asp 165	Gln	Pro	Ala	Arg	Val 170	Gln	Glu	Pro	His	Gln 175	Asn
Pro	Leu	Gly	Ser 180	Ala	His	Val	Ser	Ile 185	Arg	His	Phe	Ser	Arg 190	Pro	Glu
Pro	Gly	Gln 195	Pro	Cys	Thr	Ser	Ala 200	Thr	His	Pro	Asp	Leu 205	His	Asp	Gly
Glu	Lys 210	Asp	Asn	Phe	Gly	Thr 215	Ser	Gln	Thr	Pro	Leu 220	Ala	His	Ser	Thr
Phe 225	Tyr	Ser	Lys	Ser	Cys 230	Val	Xaa	Asp	Lys	Gln 235	Leu	Xaa	Phe		Gln 240

Gln Gln Gly Asn Phe Leu Ser Ser Thr Xaa Gly Lys Gln Arg Ser Phe 245 250 255

Leu Gln Glu Lys Ser Xaa Ala Tyr Xaa Gly Leu Leu Xaa Gly Trp Gly
260 265 270

Asp Phe Pro Phe Pro Thr Phe Phe Pro Phe Phe Phe 275 280

<210> 1323

<211> 278

<212> PRT

<213> Homo sapiens

<400> 1323

Ala Leu Lys Val Leu Cys Phe Phe Phe Pro Ile Leu Thr Gln His Tyr $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Trp Cys Phe Leu Tyr Asp Phe Pro Leu Ile Leu Ser Asp Val Met Thr $20 \hspace{1cm} 25 \hspace{1cm} 30$

Glu Ala His His Lys Tyr Asp His Ser Glu Ala Thr Gly Ser Ser Ser 35 40 45

Trp Asp Ile Gln Asn Ser Phe Arg Arg Glu Lys Leu Glu Gln Lys Ser 50 60

Pro Asp Ser Lys Thr Leu Gln Glu Asp Ser Pro Gly Val Arg Gln Arg 65 70 75 80

Val Tyr Glu Cys Gln Glu Cys Gly Lys Ser Phe Arg Gln Lys Gly Ser 85 90 95

Leu Thr Leu His Glu Arg Ile His Thr Gly Gln Lys Pro Phe Glu Cys \$100\$

Thr His Cys Gly Lys Ser Phe Arg Ala Lys Gly Asn Leu Val Thr His 115 120 125

Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Gln Cys Lys Glu Cys Gly 130 135 140

Lys Ser Phe Ser Gln Arg Gly Ser Leu Ala Val His Glu Arg Leu His 145 150 155 160

Thr Gly Gln Lys Pro Tyr Glu Cys Ala Ile Cys Gln Arg Ser Phe Arg 165 170 175

Pro Tyr Arg Cys Asp Gln Cys Gly Lys Ala Phe Ser Gln Lys Gly Ser 195 200 205

Leu Ile Val His Ile Arg Val His Thr Gly Leu Lys Pro Tyr Ala Cys 210 215 220

Thr Gln Cys Arg Lys Ser Phe His Thr Arg Gly Asn Cys Ile Leu His 225 235 240

Lys Ser Phe Thr Gln Arg Gly Ser Leu Ala Val His Gln Arg Ser Cys \$260\$ \$265\$ \$270\$

Ser Gln Arg Leu Thr Leu 275

<210> 1324 <211> 248

<211> 248 <212> PRT

<213> Homo sapiens

<400> 1324

Gly Thr Ser Trp Ser Arg Pro Phe Arg Gln Cys Phe Gln Thr Pro Trp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Glu Arg Gly Cys Arg Val Arg Ser Ser Val Cys Thr Ala Arg Gly Arg 20 25 30

Ala Gln Gln Arg Met Ser Gly Thr Leu Glu Lys Val Leu Cys Leu Arg \$35\$

Asn Asn Thr Ile Phe Lys Gln Ala Phe Ser Leu Leu Arg Phe Arg Thr $50 \ \ 55 \ \ 60$

Ser Gly Glu Lys Pro Ile Tyr Ser Val Gly Gly Ile Leu Leu Ser Ile 65 70 75 80

Ser Arg Pro Tyr Lys Thr Lys Pro Thr His Gly Ile Gly Lys Tyr Lys 90 95

His Leu Ile Lys Ala Glu Glu Pro Lys Lys Lys Lys Gly Lys Val Glu 100 105 110

Val Arg Ala Ile Asn Leu Gly Thr Asp Tyr Glu Tyr Gly Val Leu Asn

115 120 125

Ile His Leu Thr Ala Tyr Asp Met Thr Leu Ala Glu Ser Tyr Ala Gln 130 135 140

Tyr Val His Asn Leu Cys Asn Ser Leu Ser Ile Lys Val Glu Glu Ser 145 \$150\$

Tyr Ala Met Pro Thr Lys Thr Ile Glu Val Leu Gln Leu Gln Asp Gln 165 170 175

Gly Ser Lys Met Leu Leu Asp Ser Val Leu Thr Thr His Glu Arg Val \$180\$ \$180\$ \$185\$

Val Gln Ile Ser Gly Leu Ser Ala Thr Phe Ala Glu Ile Phe Leu Glu 195 \$200\$

Ile Ile Gln Ser Ser Leu Pro Glu Gly Val Arg Leu Ser Val Lys Glu 210 215 220

His Thr Glu Glu Asp Phe Lys Gly Arg Phe Lys Ala Arg Pro Glu Leu 225 235 240

Glu Glu Leu Leu Ala Lys Leu Lys 245

<210> 1325

<211> 139

<212> PRT

<213> Homo sapiens

<400> 1325

Pro Gly Ser Thr His Ala Ser Ala His Ala Ser Ala Arg Pro Thr Arg $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Lys Met Ala Pro Gln Lys Asp Arg Lys Pro Lys Arg Ser Thr Trp Arg 20 25 30

Phe Asn Leu Asp Leu Thr His Pro Val Glu Asp Gly Ile Phe Asp Ser 35 40 45

Gly Asn Phe Glu Gln Phe Leu Arg Glu Lys Val Lys Val Asn Gly Lys 50 55 60

Thr Gly Asn Leu Gly Asn Val Val His Ile Glu Arg Phe Lys Asn Lys 65 70 75 80

Ile Thr Val Val Ser Glu Lys Gln Phe Ser Lys Arg Tyr Leu Lys Tyr 85 90 95 Leu Thr Lys Lys Tyr Leu Lys Lys Asn Asn Leu Arg Asp Trp Leu Arg 100 105 110

Val Val Ala Ser Asp Lys Glu Thr Tyr Glu Leu Arg Tyr Phe Gln Ile 115 \$120\$

Ser Gln Asp Glu Asp Glu Ser Glu Ser Glu Asp 130 135

<210> 1326

<211> 356

<212> PRT

<213> Homo sapiens

<400> 1326

Ile Pro Thr Arg Pro Arg Thr Arg Gly Ser Leu Gly Ser Ala Val Lys $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Arg Thr Phe Ala Glu Asn Tyr Pro Ile Pro Glu Pro Gly Pro Asn $20 \hspace{1cm} 25 \hspace{1cm} 30$

Glu Val Leu Leu Arg Met His Ser Val Gly Ile Cys Gly Ser Asp Val $35 \hspace{1cm} 40 \hspace{1cm} 45$

His Tyr Trp Glu Tyr Gly Arg Ile Gly Asn Phe Ile Val Lys Lys Pro 50 60

Met Val Leu Gly His Glu Ala Ser Gly Thr Val Glu Lys Val Gly Ser 65 70 75 80

Ser Val Lys His Leu Lys Pro Gly Asp Arg Val Ala Ile Glu Pro Gly 85 90 95

Ala Pro Arg Glu Asn Asp Glu Phe Cys Lys Met Gly Arg Tyr Asn Leu 100 105 110

Ser Pro Ser Ile Phe Phe Cys Ala Thr Pro Pro Asp Asp Gly Asn Leu 115 120 125

Cys Arg Phe Tyr Lys His Asn Ala Ala Phe Cys Tyr Lys Leu Pro Asp 130 135 140

Asn Val Thr Phe Glu Glu Gly Ala Leu Ile Glu Pro Leu Ser Val Gly 145 \$150\$

Ile His Ala Cys Arg Arg Gly Gly Val Thr Leu Gly His Lys Val Leu 165 170 175 Val Cys Gly Ala Gly Pro Ile Gly Met Val Thr Leu Leu Val Ala Lys $$180\ \ \, 185\ \ \, 190$

Ala Met Gly Ala Ala Gln Val Val Val Thr Asp Leu Ser Ala Thr Arg 195 200 205

Leu Ser Lys Ala Lys Glu Ile Gly Ala Asp Leu Val Leu Gln Ile Ser 210 215 220

Lys Glu Ser Pro Gln Glu Ile Ala Arg Lys Val Glu Gly Gln Leu Gly 225 \$230\$

Cys Lys Pro Glu Val Thr Ile Glu Cys Thr Gly Ala Glu Ala Ser Ile \$245\$

Gln Ala Gly Ile Tyr Ala Thr Arg Ser Gly Gly Thr Leu Val Leu Val $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$

Gly Leu Gly Ser Glu Met Thr Thr Val Pro Leu Leu His Ala Ala Ile 275 \$280\$

Arg Glu Val Asp Ile Lys Gly Val Phe Arg Tyr Cys Asn Thr Trp Pro $290 \\ \hspace*{1.5cm} 295 \\ \hspace*{1.5cm} 300 \\ \hspace*{1.5cm}$

Val Ala Ile Ser Met Leu Ala Ser Lys Ser Val Asn Val Lys Pro Leu $305 \hspace{1.5cm} 310 \hspace{1.5cm} 315 \hspace{1.5cm} 320$

Val Thr His Arg Phe Pro Leu Glu Lys Ala Leu Glu Ala Phe Glu Thr 325 330 335

Phe Lys Lys Gly Leu Gly Leu Lys Ile Met Leu Lys Cys Asp Pro Ser $340 \hspace{1cm} 345 \hspace{1cm} 345$

Asp Gln Asn Pro 355

<210> 1327

<211> 107

<212> PRT

<213> Homo sapiens

<400> 1327

Met Asp Ala Ile Leu Asn Tyr Arg Ser Glu Asp Thr Glu Asp Tyr Tyr 1 5 10 15

Thr Leu Leu Gly Cys Asp Glu Leu Ser Ser Val Glu Gln Ile Leu Ala 20 25 30

Glu Phe Lys Val Arg Ala Leu Glu Cys His Pro Asp Lys His Pro Glu

WO 00/55174 PCT/US00/05988 1135

35 40 45

Asn Pro Lys Ala Val Glu Thr Phe Gln Lys Leu Gln Lys Ala Lys Glu 55

Ile Leu Thr Asn Glu Glu Ser Arg Ala Arg Tyr Asp His Trp Arg Arg 75

Ser Gln Met Ser Met Pro Phe Gln Gln Trp Glu Ala Leu Asn Asp Ser 9.0

Val Lys Thr Val Gly Phe Ser Leu Gly Ala Thr 100

<210> 1328

<211> 110

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1328

Xaa Val Ser Leu Ala Ala Leu Lys Lys Ala Leu Ala Ala Ala Gly Tyr

Asp Val Glu Lys Asn Asn Ser Arg Ile Lys Leu Gly Leu Lys Ser Leu 25

Val Ser Lys Gly Thr Leu Val Gln Thr Lys Gly Thr Gly Ala Ser Gly

Ser Phe Lys Leu Asn Lys Lys Ala Ala Ser Gly Glu Ala Lys Pro Lys

Val Lys Lys Ala Gly Gly Thr Lys Pro Lys Lys Pro Val Gly Ala Ala 70

Lys Lys Pro Lys Lys Ala Ala Gly Gly Ala Thr Pro Lys Lys Ser Ala

Lys Lys Thr Pro Lys Lys Ala Lys Lys Pro Pro Arg Pro Leu 100 105

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<211> 292
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (145)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (207)
<223> Xaa equals any of the naturally occurring L-amino acids
Leu Gly Leu Ile Cys Gln Ala Leu Trp Phe Pro Ser Tyr Phe Arg Gly
                                     10
                                                         15
Cys Tyr Gly Xaa Leu Gly Gly Arg Pro His Met Gly Arg Gly Trp Val
                                 25
Val Asp Gly Val Ser Val Val Ser Cys Gly Arg Val Ile Leu Leu Leu
                            40
Phe Leu Phe Thr Phe Phe Pro Leu His Lys Pro Lys Ser Phe His Leu
     50
                         55
Val Ser Thr Val Trp Thr Val Leu Glu Leu Gly Ala Cys Gln Lys Asn
Leu Gly Leu Gly Lys Pro Gln Val Ala Asp Met Val Lys Gln Arg Asn
Cys Ser Ser Gly Ser Cys Thr Thr Ser Glu Gly Gln Lys Pro Ser Pro
            100
                                105
                                                     110
Gly Arg Arg Arg Val Phe Arg Ser Gln Thr Phe Gly Glu Lys Ala Ala
        115
Pro Ser Leu Leu Gly Asp Arg His Ser Ala Cys Val Pro Gln Leu Gly
                        135
Xaa Ala Gly Ser Leu Thr Tyr Glu Ala Trp Arg Ser Ser His Cys Pro
145
                   150
                                        155
His Tyr Gly Gln Arg Gly Asp Pro Ala Gly Pro Leu Gly Gln Thr Gly
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165 170 175

Ala Asn Thr Ala Ser His Pro Leu Trp Leu Leu Ala Met Pro Gln Val 180 \$180\$

Pro Lys Lys Met Glu Asp Pro Cys Ala Arg Ser Gln Pro Gly Xaa Pro 195 200 205

Val Gly Pro Leu Ser Pro Leu Gly Cys Val Phe Gln Leu Leu Thr Phe 225 230 235 240

Gln Arg Gly Pro Ser Arg Ser Pro Ala Gly Phe Pro Gln Gly Leu Pro 245 250 255

Leu Arg Trp Glu Trp Ile Ser Thr Arg Ala Phe Asp Phe Gly Gln Ile \$260\$

Gly Pro His Ser His Arg Phe Ser Cys Gln Gly Pro Trp Thr Gly Gly $275 \hspace{1cm} 280 \hspace{1cm} 285 \hspace{1cm}$

Trp Cys Phe Leu 290

<210> 1330

<211> 130

<212> PRT

<213> Homo sapiens

<400> 1330

Arg Arg Trp Leu Ala Arg Leu Gly Glu Gly Val Ser Lys Met Met $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Gln His Pro Gly Gln Val Ser Ala Ser Glu Val Ser Ala Ser Ala 20 25 30

Ile Val Pro Cys Leu Ser Pro Pro Gly Ser Leu Val Phe Glu Asp Phe 35 40 45

Ala Asn Leu Thr Pro Phe Val Lys Glu Glu Leu Arg Phe Ala Ile Gln
50 55 60

Asn Lys His Leu Cys His Arg Met Ser Ser Ala Leu Glu Ser Val Thr 65 70 75 80

Val Ser Asp Arg Pro Leu Gly Val Ser Ile Thr Lys Ala Glu Val Ala 85 90 95

```
Pro Glu Glu Asp Glu Arg Lys Lys Arg Arg Arg Glu Arg Asn Lys Ile
             100
                                 105
                                                     110
Ala Ala Ala Lys Cys Arg Asn Lys Lys Glu Lys Thr Asp Ala Cys
                            120
                                                 125
Arg Lys
    130
<210> 1331
<211> 232
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (168)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (186)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (187)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (199)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (202)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (209)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1331
Gly Lys Leu Val Arg Leu Gln Val Pro Val Arg Asn Ser Arg Val Asp
                                     10
```

Pro Arg Val Arg Ala Glu Asn Arg Ser Trp Lys Cys Leu Leu Ala Ala 20 25 30

Arg Gly Glu Glu Arg Gly Ala Ser Ile Met Ala Glu Gln Asp Val Glu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Asn Asp Leu Leu Asp Tyr Asp Glu Glu Glu Glu Pro Gln Ala Pro Gln 50 55 60

Glu Ser Thr Pro Ala Pro Pro Lys Lys Asp Ile Lys Gly Ser Tyr Val 65 70 75 80

Ser Ile His Ser Ser Gly Phe Arg Asp Phe Leu Leu Lys Pro Glu Leu 85 90 95

Leu Arg Ala Ile Val Asp Cys Gly Phe Glu His Pro Ser Glu Val Gln 100 105 110

His Glu Cys Ile Pro Gln Ala Ile Leu Gly Met Asp Val Leu Cys Gln

Ala Lys Ser Gly Met Gly Lys Thr Ala Val Phe Val Leu Ala Thr Leu 130 135 140

Gln Gln Ile Glu Pro Val Asn Gly Gln Val Thr Val Leu Val Met Cys 145 150 155 160

His Thr Arg Glu Leu Ala Phe Xaa Ile Ser Lys Glu Tyr Glu Arg Phe 165 170 175

Ser Lys Tyr Met Pro Ser Val Lys Val Xaa Xaa Ser Ala Arg Leu Asp 180 185 190

Gln Ala Pro Leu Gly Phe Xaa Ser Phe Xaa Ser Leu Gly Ser Gly Pro 195 200 205

Xaa Ser Ile Tyr Gln Ala Trp Gln Gly Gln Leu Pro Leu Lys Val Cys 210 215 220

Ser Gly Phe Cys Ser Leu Lys Ala 225 230

<210> 1332 <211> 63

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7) <223> Xaa equals any of the naturally occurring L-amino acids Gly His Gly Glu Gln Arg Xaa His Gly Arg Glu Val Asn Ala Leu Lys 1.0 Ser Lys Leu Arg Arg Gly Asn Glu Thr Ser Phe Val Pro Ser Arg Arg Ser Gly Gly Arg Arg Val Ile Glu Asn Ala Asp Gly Ser Glu Glu Glu 40 Thr Asp Thr Arg Asp Ala Asp Phe Asn Gly Thr Lys Ala Ser Glu 50 <210> 1333 <211> 175 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (59) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1333 Ala Ile Ser Val Leu Ala Ser Pro Leu Thr Ser Leu Leu Ser Cys Gly 15 Asp Arg Met Asp Arg Phe Leu Val Lys Gly Ala Gln Gly Gly Leu Leu Arg Lys Gln Glu Glu Glu Pro Thr Gly Glu Glu Pro Ala Val Leu 40 Gly Gly Asp Lys Glu Ser Thr Arg Lys Arg Xaa Arg Arg Glu Ala Pro 55 60 Gly Asn Gly Gly His Ser Ala Gly Pro Ser Trp Arg His Ile Arg Ala 65 Glu Gly Leu Asp Cys Ser Tyr Thr Val Leu Phe Gly Lys Ala Glu Ala

90

Asp Glu Ile Phe Gln Glu Leu Glu Lys Glu Val Glu Tyr Phe Thr Gly

105 Ile Lys Met Ala Val Thr Thr Ser Gly Ser Thr Glu Met Met Lys Glu

115 120 125

Asn Trp Pro Leu Gly Ala Pro Leu Pro Leu Ser Pro Ser Val Pro Ala 130 135 140

Glu Thr Leu Ser Ser Gly Ile Arg Ile Pro Val Gly Lys Ala Pro Pro 145 \$150\$

Gly Gly Trp Arg Trp Ser Gly Cys Arg Trp Pro Thr Gly Ala Tyr 165 170 175

<210> 1334

<211> 63

<212> PRT

<213> Homo sapiens

<400> 1334

Ser Ser Phe Leu Leu Val Gln Phe Asp Gly Val Asn Gly Glu Phe Gln $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Gln Leu Asn Phe Val Ala Ser Ser Ser Ser Pro Ser His Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gln Ser Ser Ala Pro Leu Cys Leu Gly Asp Arg Gln Glu Val Gly Glu 35 40 45

<210> 1335

<211> 95

<211> 93

<213> Homo sapiens

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1335

Leu Leu Leu Phe Leu Ile Met Phe Ser Ala Glu Arg His Gly Leu Lys 1 5 10 15

Glu Pro Lys Arg Val Glu Glu Leu Gln Asn Lys Ile Val Asn Cys Leu 20 25 30

Lys Asp His Val Thr Phe Asn Asn Gly Gly Leu Asn Arg Pro Asn Tyr

35 40 45

Leu Xaa Lys Leu Eu Gly Lys Leu Pro Glu Leu Arg Thr Leu Cys Thr 50 55 60

Gln Gly Leu Gln Arg Ile Phe Tyr Leu Lys Leu Glu Asp Leu Val Pro 65 75 80

Pro Pro Ala Ile Ile Asp Lys Leu Phe Leu Asp Thr Leu Pro Phe 85 90 95

<210> 1336

<211> 84 <212> PRT

<213> Homo sapiens

<400> 1336

Met Gly Gly Val Pro Ser Ala Glu Ala Lys Gly Gly Glu Gln Pro Ser 20 25 30

Trp Ser Trp Arg Asp Gly Glu Gly Phe Gln Leu Ile Cys Arg Ser Cys

Pro Cys Gly Pro Gln Pro Ser Gly Leu Ala Val Asp Val Pro Leu Pro 50 60

Thr His Leu Pro Ala Cys Pro Pro Ala Arg Ile Ala Leu Ala Asp Leu 65 70 75 80

Pro Glu Arg Thr

<210> 1337

<211> 146

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1337

Ala Gly Leu Arg Lys Arg Gly Arg Ser Gly Ser Ala Ala Gln Ala Glu

1 5 10 15 Gly Leu Cys Lys Gln Trp Leu Gln Arg Ala Trp Gln Glu Arg Arg Leu 25 Leu Leu Arg Glu Pro Arg Tyr Thr Leu Leu Val Ala Ala Cys Leu Cys 40 Leu Ala Glu Val Gly Ile Thr Phe Trp Val Ile His Arg Val Ala Tyr Thr Glu Ile Asp Trp Lys Ala Tyr Met Ala Xaa Val Glu Gly Val Ile 65 70 Asn Gly Thr Tyr Asp Tyr Thr Gln Leu Gln Gly Asp Thr Gly Pro Leu Val Tyr Pro Ala Gly Phe Val Tyr Ile Phe Met Gly Leu Tyr Tyr Ala 100 105 Thr Ser Arg Gly Thr Asp Ile Arg Met Ala Gln Asn Ile Phe Ala Val 115 Leu Tyr Leu Ala Thr Leu Leu Leu Val Phe Leu Ile Tyr His Gln Thr 130 135 140 Cys Lys 145 <210> 1338 <211> 187 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (177) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (185) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (187)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1338
Leu Thr Leu Leu Phe Pro Glu Pro Pro Ala Gln Ala Gly Met Phe Val
1
5
10
15

Leu Val Glu Met Val Asp Thr Val Arg Ile Pro Pro Trp Gln Phe Glu

Arg Lys Leu Asn Asp Ser Ile Ala Glu Glu Leu Asn Lys Leu Ala $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Asn Lys Val Val Tyr Asn Val Gly Leu Cys Ile Cys Leu Phe Asp Ile 50 55 60

Thr Lys Leu Glu Asp Ala Tyr Val Phe Pro Gly Asp Gly Ala Ser His 65 70 75 80

Ser Leu Gly Phe Phe Asp Asp Ile Leu Ile Pro Pro Glu Ser Leu Gln \$115\$

Gln Pro Ala Lys Phe Asp Glu Ala Glu Gln Val Trp Val Trp Glu Tyr 130 135 140

Glu Thr Glu Glu Gly Ala His Asp Leu Tyr Met Asp Thr Gly Glu Glu 145 \$150\$

Ile Arg Phe Arg Val Val Asp Glu Ser Phe Val Asp Thr Ser Pro Thr 165 170 175

Xaa Pro Ser Ser Ala Asp Ala Thr Xaa Phe Xaa 180 185

<210> 1339

<211> 43

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1339

Gly Gln Thr Phe Thr Ser Gly Asn Leu Leu Ser His Val Phe His Phe

10 1 5 15 Tyr Ala His Arg Ile Ile Trp Cys Asn Gly Ala Tyr Xaa Pro Lys Phe 25 Gln Asn Phe Lys Phe Met Tyr Leu Phe Leu His 35 40 <210> 1340 <211> 104 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (100) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1340 Xaa Pro Ala Pro Gln Gln Pro Gly Pro Gln Arg Cys Glu Glu Pro Leu 1 5 10 His Arg Asp Leu Pro Gly Gly Ala Asp Gln Ser Gly Arg Arg Xaa Ser 20 Leu Arg Gln Thr Arg Thr Trp Lys Phe Ile Asp Pro Phe Cys Arg Ile Ala Ala Arg Thr Lys Asp Ser Leu Val Leu Asn Asn Ile Thr Arg Gly Ile Phe Glu Thr Ile Val Glu Gln Ala Pro Leu Ala Ile Glu Asp Leu 65 70

Leu Asn Glu Leu Asp Thr Gln Asp Glu Glu Val Ala Ser Asp Ser Asp

90

Glu Ser Ser Xaa Gly Gly Glu Arg 100

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<210> 1341
<211> 169
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (126)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1341
Gly Ser Thr Pro Arg Gly Lys Met Arg Ala Pro Ile Pro Glu Pro Lys
Pro Gly Asp Leu Ile Glu Ile Phe Arg Pro Phe Tyr Arg His Trp Ala
                                25
Ile Tyr Val Gly Asp Gly Tyr Val Val His Leu Ala Pro Pro Ser Glu
        35
                            40
Val Ala Gly Ala Gly Ala Ala Ser Val Met Ser Ala Leu Thr Asp Lys
Ala Ile Val Lys Lys Glu Leu Leu Tyr Asp Val Ala Gly Ser Asp Lys
                    7.0
Tyr Gln Val Asn Asn Lys His Asp Asp Lys Tyr Ser Pro Leu Pro Cys
                85
                                     90
Ser Lys Ile Ile Gln Arg Ala Glu Glu Leu Val Gly Gln Glu Val Leu
           100
                               105 -
Tyr Lys Leu Thr Ser Glu Asn Cys Glu His Phe Val Asn Xaa Leu Arg
                           120
Tyr Gly Val Ala Arg Ser Asp Gln Val Arg Asp Val Ile Ile Ala Ala
   130
                       135
```

Ser Val Ala Gly Met Gly Leu Ala Ala Met Ser Leu Ile Gly Val Met

155

160

150

Phe Ser Arg Asn Lys Arg Gln Lys Gln 165

<210> 1342 <211> 115

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<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (102)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (114)
<223> Xaa equals any of the naturally occurring L-amino acids
Phe Pro Asn Pro Xaa Xaa Arg Gly Val Trp Ala Arg Gly Pro Pro Gly
                  5
                                     1.0
Leu Ser Phe Lys Gly Lys Thr Leu Xaa Gly Phe Gly Glu Ile Pro Pro
Pro Pro Gly Gly Ala Leu Cys Pro Lys Gly Lys Asn Phe Pro Gly Ala
         35
                            40
Xaa Pro Glu Arg Pro Gln Lys Arg Phe Pro Pro Gly Lys Glu Ser Pro
     50
                        5.5
Val Gly Ile Val Lys Thr Lys Arg Gly Ile Leu Lys Ala Gly Asn Ser
65
Gly Cys Pro Pro Thr Ser Pro Asn Ile Pro Gly Gly Thr Trp Gly Leu
```

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Glu Arg Cys Leu Gly Xaa Leu Arg Gln Ala Ser Gln Gly Trp Leu Val
            100
                               105
Ser Xaa Arg
       115
<210> 1343
<211> 342
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1343
Xaa Leu His Arg Gly Asp Asp Arg Ser Arg Thr Ser Gly Ser Pro Gly
Leu Gln Glu Phe Gly Arg Gly Xaa Ala Gly Val Gly Gly Arg Pro Arg
Arg Arg Arg Arg Lys Gly Ala Ala Ser Arg Ala Arg Leu Pro Phe Ser
        35
                           40
                                                45
Leu Ser Ile Met Asp Pro Ser Leu Leu Arg Glu Arg Glu Leu Phe Lys
                        55
Lys Arg Ala Leu Ser Thr Pro Val Val Glu Lys Arg Ser Ala Ser Ser
                    70
Glu Ser Ser Ser Ser Ser Lys Lys Lys Thr Lys Val Glu His
Gly Gly Ser Ser Gly Ser Lys Gln Asn Ser Asp His Ser Asn Gly Ser
           100
                              105
Phe Asn Leu Lys Ala Leu Ser Gly Ser Ser Gly Tyr Lys Phe Gly Val
       115
                           120
```

Leu Ala Lys Ile Val Asn Tyr Met Lys Thr Arg His Gln Arg Gly Asp

140

135

Thr His Pro Leu Thr Leu Asp Glu Ile Leu Asp Glu Thr Gln His Leu

Asp Ile Gly Leu Lys Gln Lys Gln Trp Leu Met Thr Glu Ala Leu Val 165 170 175

Asn Asn Pro Lys Ile Glu Val Ile Asp Gly Lys Tyr Ala Phe Lys Pro

Lys Tyr Asn Val Arg Asp Lys Lys Ala Leu Leu Arg Leu Leu Asp Gln \$195\$ 200 205

His Asp Gln Arg Gly Leu Gly Gly Ile Leu Leu Glu Asp Ile Glu Glu 210 215 220

Ala Leu Pro Asn Ser Gln Lys Ala Val Lys Ala Leu Gly Asp Gln Ile 225 230 230 235

Leu Phe Val Asn Arg Pro Asp Lys Lys Lys Ile Leu Phe Phe Asn Asp 245 250 255

Lys Ser Cys Gln Phe Ser Val Asp Glu Glu Phe Gln Lys Leu Trp Arg $260 \\ \hspace*{1.5cm} 265 \\ \hspace*{1.5cm} 270 \\ \hspace*{1.5cm}$

Ser Val Thr Val Asp Ser Met Asp Glu Glu Lys Ile Glu Glu Tyr Leu \$275\$ \$280\$ \$285\$

Lys Arg Gln Gly Ile Ser Ser Met Gln Glu Ser Gly Pro Lys Lys Val 290 295 300

Ala Pro Ile Gln Arg Arg Lys Lys Pro Ala Ser Gln Lys Lys Arg Arg 305 310 315

Phe Lys Thr His Asn Glu His Leu Ala Gly Val Leu Lys Asp Tyr Ser $325 \hspace{1.5cm} 330 \hspace{1.5cm} 335$

Asp Ile Thr Ser Ser Lys 340

<210> 1344 <211> 310

<212> PRT

<212> PRT

<213> Homo sapiens

<400> 1344

Cys Gly Arg Arg Ser Ser Leu His Leu Leu Gly Pro Pro Ser Leu
1 5 10 15

Pr	o Se	Ser	His 20		Pro	Ser	Ser	Gly 25	Val	Val	Pro	Ala	Thr 30	Leu	Asp
Al	a Ala	Ala 35		Thr	Lys	Glu	Asp 40	Pro	Ala	Ala	Ala	Arg 45	Arg	His	Leu
Ar	g Let 50		Leu	Arg	Pro	Ala 55	Pro	Gly	Pro	Arg	Arg 60	Arg	His	Gln	Gly
A1 6	a Arq	J Leu	Ser	Leu	Pro 70	Gly	Gly	Leu	Gly	Pro 75	Ala	Ser	Ser	Cys	Arg 80
Le	u Arç	, Ala	Arg	Thr 85	Arg	Leu	Ser	His	Leu 90	Gly	Pro	Cys	Arg	Gln 95	Lys
As	n Met	Ala	Gln 100		Thr	Asn	Gln	Thr 105	Pro	Gly	Pro	Met	Leu 110	Cys	Ser
Th	r Gly	Cys 115	Gly	Phe	Tyr	Gly	Asn 120	Pro	Arg	Thr	Asn	Gly 125	Met	Cys	Ser
Va	1 Cys		Lys	Glu	His	Leu 135	Gln	Arg	Gln	Gln	Asn 140	Ser	Gly	Arg	Met
Se:	r Pro	Met	Gly	Thr	Ala 150	Ser	Gly	Ser	Asn	Ser 155	Pro	Thr	Ser	Asp	Ser 160
Ala	a Ser	Val	Gln	Arg 165	Ala	Asp	Thr	Ser	Leu 170	Asn	Asn	Cys	Glu	Gly 175	Ala
Ala	a Gly	Ser	Thr 180	Ser	Glu	Lys	Ser	Arg 185	Asn	Val	Pro	Val	Ala 190	Ala	Leu
Pro	o Val	Thr 195	Gln	Gln	Met	Thr	G1u 200	Met	Ser	Ile	Ser	Arg 205	Glu	Asp	Lys
Ile	e Thr 210		Pro	Lys	Thr	Glu 215	Val	ser	Glu	Pro	Val 220	Val	Thr	Gln	Pro
Ser 225	r Pro	Ser	Val	ser	Gln 230	Pro	Ser	Thr	ser	Gln 235	Ser	Glu	Glu	Lys	Ala 240
Pro	Glu	Leu	Pro	Lys 245	Pro	Lys	Lys	Asn	Arg 250	Cys	Phe	Met	Cys	Arg 255	Lys
Lys	val	Gly	Leu 260	Thr	Gly	Phe		Cys 265	Arg	Cys	Gly	Asn	Leu 270	Phe	Cys
Gly	/ Leu	His 275	Arg	Tyr	Ser	Asp	Lys 280	His	Asn	Cys	Pro	Tyr 285	Asp	Tyr	Lys

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Ala Glu Ala Ala Ala Lys Ile Arg Lys Glu Asn Pro Val Val Val Ala
                       295
Glu Lys Ile Gln Arg Ile
<210> 1345
<211> 202
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (182)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1345
Arg Arg Ala Arg Ala His Pro Gly Xaa Arg Leu Trp Gly Arg Arg Arg
        5
Gly Pro Glu Pro Ser Thr Val Gly Arg Lys Ala Thr Lys Lys Thr Asp
             20
                                25
Lys Pro Arg Gln Glu Asp Lys Asp Asp Leu Asp Val Thr Glu Leu Thr
Asn Glu Asp Leu Leu Asp Gln Leu Val Lys Tyr Gly Val Asn Pro Gly
                       55
Pro Ile Val Gly Thr Thr Arg Lys Leu Tyr Glu Lys Lys Leu Leu Lys
65
                                       75
Leu Arg Glu Gln Gly Thr Glu Ser Arg Ser Ser Thr Pro Leu Pro Thr
Ile Ser Ser Ser Ala Glu Asn Thr Arg Gln Asn Gly Ser Asn Asp Ser
                               105
Asp Arg Tyr Ser Asp Asn Glu Glu Gly Lys Lys Lys Glu His Lys Lys
        115
                           120
                                              125
Val Lys Ser Thr Arg Asp Ile Val Pro Phe Ser Glu Leu Gly Asn Tyr
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135

Ser Leu Trp Trp Trp Asp Phe Phe Arg Val Phe Leu Phe Leu Lys Ser Pro Pro Val Leu Leu Trp Ala Val Pro Asn Tyr Arg Gln Leu Arg Lys 170 Tyr Ile Leu Leu Arg Xaa Thr Tyr Leu Gly Ser Leu Leu Leu Pro Gln 180 185 Thr Cys Leu Ala Gly Asp Ser Cys Arg Ser 200 <210> 1346 <211> 223 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (35) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (137) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1346 Val Ile Asp His Pro Arg Pro Arg Asp Thr Gln Phe Ile Val Ile Ile Met Asn Asn Gln Lys Val Val Ala Val Leu Leu Gln Glu Cys Lys Gln 25 Val Leu Xaa Gln Leu Leu Glu Ala Pro Asp Val Ser Glu Glu Asp 35 Lys Ser Glu Asp Gln Arg Cys Arg Ala Leu Leu Pro Ser Glu Leu Arg 55 Thr Leu Ile Gln Glu Ala Lys Glu Met Lys Trp Pro Phe Val Pro Glu 75 Lys Trp Gln Tyr Lys Gln Ala Val Gly Pro Glu Asp Lys Thr Asn Leu 85 Lys Asp Val Ile Gly Ala Gly Leu Gln Gln Leu Leu Ala Ser Leu Arg

105

Ala Ser Ile Leu Ala Arg Asp Cys Ala Ala Ala Ala Ala Ile Val Phe Leu Val Asp Arg Phe Leu Tyr Gly Xaa Asp Val Ser Gly Lys Leu Leu Gln Val Ala Lys Gly Leu His Lys Leu Gln Pro Ala Thr Pro Ile Ala 145 150 155 Pro Gln Val Val Ile Arg Gln Ala Arg Ile Ser Val Asn Ser Gly Lys 165 170 Leu Leu Lys Ala Glu Tyr Ile Leu Ser Ser Leu Ile Ser Asn Asn Gly 185 Ala Thr Gly Thr Trp Leu Tyr Arg Asn Glu Ser Asp Lys Val Leu Val 200 205 Gln Ser Val Cys Ile Gln Ile Arg Gly Gln Ile Leu Gln Lys Leu 210 215 <210> 1347 <211> 744 <212> PRT <213> Homo sapiens Leu Asp Arg Thr Ile Lys Val Trp Gln Leu Gly Ser Ser Ser Pro Asn 5 10 Phe Thr Leu Glu Gly His Glu Lys Gly Val Asn Cys Ile Asp Tyr Tyr Ser Gly Gly Asp Lys Pro Tyr Leu Ile Ser Gly Ala Asp Asp Arg Leu Val Lys Ile Trp Asp Tyr Gln Asn Lys Thr Cys Val Gln Thr Leu Glu 50 55 60 Gly His Ala Gln Asn Val Ser Cys Ala Ser Phe His Pro Glu Leu Pro 70 Ile Ile Ile Thr Gly Ser Glu Asp Gly Thr Val Arg Ile Trp His Ser 90 Ser Thr Tyr Arg Leu Glu Ser Thr Leu Asn Tyr Gly Met Glu Arg Val 105

Trp Cys Val Ala Ser Leu Arg Gly Ser Asn Asn Val Ala Leu Gly Tyr

115			120			125		
Asp Glu Gly 130	Ser Ile	Ile Val		Leu Gly	Arg Glu 140		Ala	Met
Ser Met Asp 145	Ala Asn	Gly Lys 150	Ile	Ile Trp	Ala Lys 155	His Ser	Glu	Val 160
Gln Gln Ala	Asn Leu 165	Lys Ala	Met (Gly Asp 170	Ala Glu	Ile Lys	Asp 175	Gly
Glu Arg Leu	Pro Leu 180	Ala Val		Asp Met 185	Gly Ser	Cys Glu 190	Ile	Tyr
Pro Gln Thr 195	Ile Gln	His Asn	Pro 2	Asn Gly	Arg Phe	Val Val 205	Val	Cys
Gly Asp Gly 210	Glu Tyr	Ile Ile 215		Thr Ala	Met Ala 220	Leu Arg	Asn	Lys
Ser Phe Gly 225	Ser Ala	Gln Glu 230	Phe A	Ala Trp	Ala His 235	Asp Ser		Glu 240
Tyr Ala Ile	Arg Glu 245	Ser Asn	ser 1	Ile Val 250	Lys Ile	Phe Lys	Asn 255	Phe
Lys Glu Lys	Lys Ser 260	Phe Lys		Asp Phe 265	Gly Ala	Glu Ser 270	Ile	Tyr
Gly Gly Phe 275	Leu Leu	Gly Val	Arg S 280	Ser Val	Asn Gly	Leu Ala 285	Phe	Tyr
Asp Trp Asp 290	Asn Thr	Glu Leu 295	Ile A	Arg Arg	Ile Glu 300	Ile Gln	Pro	Lys
His Ile Phe 305	Trp Ser	Asp Ser 310	Gly G	Glu Leu	Val Cys 315	Ile Ala		Glu 320
Glu Ser Phe	Phe Ile 325	Leu Lys	Tyr L	Seu Ser 330	Glu Lys	Val Leu	Ala . 335	Ala
Gln Glu Thr	His Glu 340	Gly Val		Glu Asp 845	Gly Ile	Glu Asp 350	Ala	Phe
Glu Val Leu 355	Gly Glu	Ile Gln	Glu I 360	le Val	Lys Thr	Gly Leu 365	Trp	Val
Gly Asp Cys 370	Phe Ile	Tyr Thr 375	Ser S	er Val	Asn Arg 380	Leu Asn	Tyr	Tyr
Val Gly Gly	Glu Ile	Val Thr	Ile A	ala His	Leu Asp	Arg Thr	Met '	Tyr

385					390					395					400
Leu	Leu	Gly	Tyr	Ile 405		Lys	Asp	Asn	Arg 410		Tyr	Leu	Gly	Asp 415	Lys
Glu	Leu	Asn	Ile 420		Ser	туг	Ser	Leu 425	Leu	Val	ser	Val	Leu 430	Glu	Tyr
Gln	Thr	Ala 435		Met	Arg	Arg	Asp 440	Phe	Ser	Met	Ala	Asp 445		Val	Leu
Pro	Thr 450		Pro	Lys	Glu	Gln 455	Arg	Thr	Arg	Val	Ala 460	His	Phe	Leu	Glu
Lys 465	Gln	Gly	Phe	Lys	Gln 470	Gln	Ala	Leu	Thr	Val 475	Ser	Thr	Asp	Pro	Glu 480
His	Arg	Phe	Glu	Leu 485	Ala	Leu	Gln	Leu	Gly 490	Glu	Leu	Lys	Ile	Ala 495	Tyr
Gln	Leu	Ala	Val 500	Glu	Ala	Glu	Ser	Glu 505	Gln	Lys	Trp	Lys	Gln 510	Leu	Ala
Glu	Leu	Ala 515	Ile	Ser	Lys	Cys	Gln 520	Phe	Gly	Leu	Ala	Gln 525	Glu	Суѕ	Leu
His	His 530	Ala	Gln	Asp	Tyr	Gly 535	Gly	Leu	Leu	Leu	Leu 540	Ala	Thr	Ala	Ser
Gly 545	Asn	Ala	Asn	Met	Val 550	Asn	Lys	Leu	Ala	Glu 555	Gly	Ala	Glu	Arg	Asp 560
Gly	Lys	Asn	Asn	Val 565	Ala	Phe	Met	Ser	Tyr 570	Phe	Leu	Gln	Gly	Lys 575	Val
Asp	Ala	Cys	Leu 580	Glu	Leu	Leu	Ile	Arg 585	Thr	Gly	Arg	Leu	Pro 590	Glu	Ala
Ala	Phe	Leu 595	Ala	Arg	Thr	Tyr	Leu 600	Pro	ser	Gln	Val	ser 605	Arg	Val	Val
Lys	Leu 610	Trp	Arg	Glu	Asn	Leu 615	Ser	Lys	Val	Asn	Gln 620	Lys	Ala	Ala	Glu
Ser 625	Leu	Ala	Asp	Pro	Thr 630	Glu	Tyr	Glu	Asn	Leu 635	Phe	Pro	Gly	Leu	Lys 640
Glu	Ala	Phe	Val	Val 645	Glu	Glu	Trp	Val	Lys 650	Glu	Thr	His	Ala	Asp 655	Leu
Trp	Pro	Ala	Lys	Gln	Tyr	Pro	Leu	Val	Thr	Pro	Asn	Glu	Glu	Arg	Asn

660 665 670

Val Met Glu Glu Gly Lys Asp Phe Gln Pro Ser Arg Ser Thr Ala Gln 675 680 685

Gln Glu Leu Asp Gly Lys Pro Ala Ser Pro Thr Pro Val Ile Val Ala 690 695 700

Ser His Thr Ala Asn Lys Glu Glu Lys Ser Leu Leu Glu Leu Glu Val 705 710 715 720

Asp Leu Asp Asn Leu Glu Leu Glu Asp Ile Asp Thr Thr Asp Ile Asn 725 730 735

Leu Asp Glu Asp Ile Leu Asp Asp 740

<210> 1348

<211> 314

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1348

Asn Thr Val Val Met Lys Val Ala Glu Gln Thr Pro Leu Ser Ala Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Tyr Xaa Ala Ser Leu Ile Lys Glu Ala Gly Phe Pro Pro Gly Val Val 20 25 30

Asn Ile Ile Thr Gly Tyr Gly Pro Thr Ala Gly Ala Ala Ile Ala Gln 35 40 45

His Met Asp Val Asp Lys Val Ala Phe Thr Gly Ser Thr Glu Val Gly
50 55 60

His Leu Ile Gln Lys Ala Ala Gly Asp Ser Asn Leu Lys Arg Val Thr 65 70 75 80

Leu Glu Leu Gly Gly Lys Xaa Pro Ser Ile Val Leu Ala Asp Ala Asp

85 90 95 Met Glu His Ala Val Glu Gln Cys His Glu Ala Leu Phe Phe Asn Met 105 Gly Gln Cys Cys Cys Ala Gly Ser Arg Thr Phe Val Glu Glu Ser Ile 120 Tyr Asn Glu Phe Leu Glu Arg Thr Val Glu Lys Ala Lys Gln Arg Lys Val Gly Asn Pro Phe Glu Leu Asp Thr Gln Gln Gly Pro Gln Val Asp 145 150 Lys Glu Gln Phe Glu Arg Val Leu Gly Tyr Ile Gln Leu Gly Gln Lys 170 Glu Gly Ala Lys Leu Leu Cys Gly Gly Glu Arg Phe Gly Glu Arg Gly 185 Phe Phe Ile Lys Pro Thr Val Phe Gly Gly Val Gln Asp Asp Met Arg Ile Ala Lys Glu Glu Ile Phe Gly Pro Val Gln Pro Leu Phe Lys Phe Lys Lys Ile Glu Glu Val Val Glu Arg Ala Asn Asn Thr Arg Tyr Gly Leu Ala Ala Ala Val Phe Thr Arg Asp Leu Asp Lys Ala Met Tyr Phe 245 255 250 Thr Gln Ala Leu Gln Ala Gly Thr Val Trp Val Asn Thr Tyr Asn Ile 265 Val Thr Cys His Thr Pro Phe Gly Gly Phe Lys Glu Ser Gly Asn Gly 280 Arg Glu Leu Gly Glu Asp Gly Leu Lys Ala Tyr Thr Glu Val Lys Thr 290 300 Val Thr Ile Lys Val Pro Gln Lys Asn Ser 305 310

<210> 1349

<211> 146

<212> PRT

<213> Homo sapiens

<400> 1349
Arg Cys Pro Ile Ala Ser Glu Val Pro Trp Thr Ile Thr Glu Ala Glu
1
5
10
15

Leu Arg Val Thr Leu Thr Val Glu Gly Lys Ser Ile Pro Cys Leu Ile 20 25 30

Asp Thr Gly Ala Thr His Ser Thr Leu Pro Ser Phe Gln Gly Pro Val

Ser Leu Ala Pro Ile Thr Val Val Gly Ile Asp Gly Gln Ala Ser Lys 50 55 60

Pro Leu Lys Thr Pro Pro Leu Trp Cys Gln Leu Gly Gln His Ser Phe 65 70 75 80

Met His Ser Phe Leu Val Ile Pro Thr Cys Pro Leu Pro Leu Gly 85 90 95

Arg Asn Ile Leu Thr Lys Leu Ser Ala Ser Leu Thr Ile Pro Gly Val \$100\$

Gln Leu His Leu Ile Ala Ala Leu Leu Pro Asn Pro Lys Pro Pro Leu 115 120 125

Cys Pro Leu Thr Ser Pro Gln Tyr His Pro Leu Pro Gln Asp Leu Pro 130 135 140

Ser Ala 145

<210> 1350

<211> 296 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (53)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1350

Pro Thr Arg Pro Arg Thr Arg Gly Ala Ile Phe Ala Ala Arg Thr Arg $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Glu Arg Leu Arg Glu Ser Glu Thr Leu Ser Ala Ser Ile Arg Arg 20 25 30

Ala Asp Pro Ala Gly Ala Ala Ala Met Asp Asp Arg Glu Asp Leu

		35					40					45			
Val	Tyr 50		Ala	Xaa	Leu	Ala 55	Glu	Gln	Ala	Glu	Arg 60	Tyr	Asp	Glu	Met
Val 65	Glu	Ser	Met	Lys	Lys 70	Val	Ala	Gly	Met	Asp 75	Val	Glu	Leu	Thr	Val 80
Glu	Glu	Arg	Asn	Leu 85	Leu	Ser	Val	Ala	Tyr 90	Lys	Asn	Val	Ile	Gly 95	Ala
Arg	Arg	Ala	ser 100	Trp	Arg	Ile	Ile	Ser 105	Ser	Ile	Glu	Gln	Lys 110	Glu	Glu
Asn	Lys	Gly 115	Gly	Glu	Asp	Lys	Leu 120	Lys	Met	Ile	Arg	Glu 125	Tyr	Arg	Gln
Met	Val 130	Glu	Thr	Glu	Leu	Lys 135	Leu	Ile	Cys	Cys	Asp 140	Ile	Leu	Asp	Val
Leu 145	Asp	Lys	His	Leu	11e 150	Pro	Ala	Ala	Asn	Thr 155	Gly	Glu	Ser	Lys	Val 160
Phe	Tyr	Tyr	Lys	Met 165	Lys	Gly	Asp	Tyr	His 170	Arg	Tyr	Leu	Ala	Glu 175	Phe
Ala	Thr	Gly	Asn 180	Asp	Arg	Lys	Glu	Ala 185	Ala	Glu	Asn	Ser	Leu 190	Val	Ala
Tyr	Lys	Ala 195	Ala	Ser	Asp	Ile	Ala 200	Met	Thr	Glu	Leu	Pro 205	Pro	Thr	His
Pro	11e 210	Arg	Leu	Gly	Leu	Ala 215	Leu	Asn	Phe	Ser	Val 220	Phe	туг	Tyr	Glu
11e 225	Leu	Asn	Ser	Pro	Asp 230	Arg	Ala	Cys	Arg	Leu 235	Ala	Lys	Ala	Ala	Phe 240
Asp	Asp	Ala	Ile	Ala 245	Glu	Leu	Asp	Thr	Leu 250	Ser	Glu	Glu	Ser	Tyr 255	Lys
Asp	Ser	Thr	Leu 260	Ile	Met	Gln	Leu	Leu 265	Arg	Asp	Asn	Leu	Thr 270	Leu	Trp
Thr	Ser	Asp 275	Met	Gln	Gly	Asp	Gly 280	Glu	Glu	Gln	Asn	Lys 285	Glu	Ala	Leu
Gln	Asp 290	Val	Glu	Asp	Glu	Asn 295	Gln								

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<210> 1351
<211> 184
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (126)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (131)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (136)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (137)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (143)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (146)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (147)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (149)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (152)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>

<221> SITE

<222> (159) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (163)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 135

Gly Ser Ala Pro Glu Thr Ser Pro Glu Lys Cys Ser Ser Arg Ala Lys $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Cys Lys Val Ile Arg Lys Asn Ile Val Lys Lys Cys Leu Glu Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Phe Ser Glu Leu Ala Glu Asp Lys Glu Asn Tyr Lys Lys Phe Tyr Glu 35 40 45

Arg Arg Arg Leu Ser Glu Leu Leu Arg Tyr His Thr Ser Gln Ser Gly 65 70 75 80

Asp Glu Met Thr Ser Leu Ser Glu Tyr Val Ser Arg Met Lys Glu Thr $85 \hspace{1cm} 90 \hspace{1cm} 95$

Gln Lys Ser Ile Tyr Tyr Ile Thr Gly Glu Ser Lys Glu Gln Val Ala $100 \hspace{1cm} 105 \hspace{1cm} 110$

Asn Ser Ala Phe Val Glu Arg Val Arg Lys Arg Gly Phe Xaa Val Val 115 120 125

Tyr Met Xaa Glu Pro Ile Asp Xaa Xaa Cys Val Gln Gln Leu Xaa Glu 130 135 140

Phe Xaa Xaa Lus Xaa Leu Val Xaa Val Thr Lys Glu Val Trp Xaa Cys 145 150 155 160

Leu Arg Xaa Arg Arg Glu Glu Glu Asp Gly Arg Glu Gln Gly Lys Phe 165 170 175

Arg Pro Cys Ser Ser Glu Glu Ser 180

<210> 1352

<211> 415

<212> PRT <213> Homo sapiens <400> 1352 Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Leu His Leu Lys Glu 10 Asp Gln Thr Glu Tyr Leu Glu Glu Arg Arg Val Lys Glu Val Val Lys Lys His Ser Gln Phe Ile Gly Tyr Pro Ile Thr Leu Tyr Leu Glu Lys 40 Glu Arg Glu Lys Glu Ile Ser Asp Asp Glu Ala Glu Glu Glu Lys Gly Glu Lys Glu Glu Glu Asp Lys Asp Asp Glu Glu Lys Pro Lys Ile Glu Asp Val Gly Ser Asp Glu Glu Asp Asp Ser Gly Lys Asp Lys Lys Lys Thr Lys Lys Ile Lys Glu Lys Tyr Ile Asp Gln Glu Glu Leu Asn 100 105 110 Lys Thr Lys Pro Ile Trp Thr Arg Asn Pro Asp Asp Ile Thr Gln Glu 120 Glu Tyr Gly Glu Phe Tyr Lys Ser Leu Thr Asn Asp Trp Glu Asp His 135 Leu Ala Val Lys His Phe Ser Val Glu Glv Gln Leu Glu Phe Arg Ala 145 150 155 Leu Leu Phe Ile Pro Arg Arg Ala Pro Phe Asp Leu Phe Glu Asn Lys 165 170 Lys Lys Lys Asn Asn Ile Lys Leu Tyr Val Arg Arg Val Phe Ile Met Asp Ser Cys Asp Glu Leu Ile Pro Glu Tyr Leu Asn Phe Ile Arg Gly 200 Val Val Asp Ser Glu Asp Leu Pro Leu Asn Ile Ser Arg Glu Met Leu 210 215

Gln Gln Ser Lys Ile Leu Lys Val Ile Arg Lys Asn Ile Val Lys Lys

Cys Leu Glu Leu Phe Ser Glu Leu Ala Glu Asp Lys Glu Asn Tyr Lys 245 250 255

235

230

225

Lys Phe Tyr Glu Ala Phe Ser Lys Asn Leu Lys Leu Gly Ile His Glu 260 265 270

Asp Ser Thr Asn Arg Arg Arg Leu Ser Glu Leu Leu Arg Tyr His Thr

Ser Gln Ser Gly Asp Glu Met Thr Ser Leu Ser Glu Tyr Val Ser Arg 290 295 300

Met Lys Glu Thr Gln Lys Ser Ile Tyr Tyr Ile Thr Gly Glu Ser Lys 305 310 315 320

Glu Gln Val Ala Asn Ser Ala Phe Val Glu Arg Val Arg Lys Arg Gly 325 330 335

Phe Glu Val Val Tyr Met Thr Glu Pro Ile Asp Glu Tyr Cys Val Glu 340 345 350

Gln Leu Lys Glu Phe Asp Gly Lys Ser Leu Val Ser Val Thr Lys Glu \$355\$

Gly Leu Glu Leu Pro Glu Asp Glu Glu Glu Lys Lys Lys Met Glu Glu 370 375 380

Ser Lys Ala Lys Phe Glu Asn Leu Cys Lys Leu Met Gly Tyr Met Met 385 \$390\$ 395 400

Ala Lys Lys His Trp Arg Ser Thr Leu Thr Thr Pro Phe Leu Glu 405 410 415

<210> 1353

<211> 256

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1353

Ser Pro Ile Ser Asp Gly Asn Asp Ala Xaa Leu Arg His Val Asn Ile $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Asp His Leu His Val Gly Trp Tyr Gln Ser Thr Tyr Tyr Gly Ser Phe 20 25 30

Val Thr Arg Ala Leu Leu Asp Ser Gln Phe Ser Tyr Gln His Ala Ile

35 40 45 Glu Glu Ser Val Val Leu Ile Tyr Asp Pro Ile Lys Thr Ala Gln Gly 55 Ser Leu Ser Leu Lys Ala Tyr Arg Leu Thr Pro Lys Leu Met Glu Val 75 Cys Lys Glu Lys Asp Phe Ser Pro Glu Ala Leu Lys Lys Ala Asn Ile Thr Phe Glu Tyr Met Phe Glu Glu Val Pro Ile Val Ile Lys Asn Ser 100 105 His Leu Ile Asn Val Leu Met Trp Glu Leu Glu Lys Lys Ser Ala Val 120 Ala Asp Lys His Glu Leu Leu Ser Leu Ala Ser Ser Asn His Leu Gly 135 Lys Asn Leu Gln Leu Leu Met Asp Arg Val Asp Glu Met Ser Gln Asp 150 Ile Val Lys Tyr Asn Thr Tyr Met Arg Asn Thr Ser Lys Gln Gln Gln 165 170 Gln Lys His Gln Tyr Gln Gln Arg Arg Gln Gln Glu Asn Met Gln Arg 185 Gln Ser Arg Gly Glu Pro Pro Leu Pro Glu Glu Asp Leu Ser Lys Leu 195 200 Phe Lys Pro Pro Gln Pro Pro Ala Arg Met Asp Ser Leu Leu Ile Ala 215 Gly Gln Ile Asn Thr Tyr Cys Gln Asn Ile Lys Glu Phe Thr Ala Gln 230 235

Asn Leu Gly Lys Leu Phe Met Ala Gln Ala Leu Gln Glu Tyr Asn Asn

250

<210> 1354

<211> 210

<212> PRT

<213> Homo sapiens

245

<220>

<221> SITE

<222> (192)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (208)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 135

Ile Met Lys Leu Leu Thr Arg Ala Gly Ser Phe Ser Arg Phe Tyr Ser

Leu Lys Val Ala Pro Lys Val Lys Ala Thr Ala Ala Pro Ala Gly Ala

Pro Pro Gln Pro Gln Asp Leu Glu Phe Thr Lys Leu Pro Asn Gly Leu 35 40 45

Val Ile Ala Ser Leu Glu Asn Tyr Ser Pro Val Ser Arg Ile Gly Leu
50 55 60

Phe Ile Lys Ala Gly Ser Arg Tyr Glu Asp Phe Ser Asn Leu Gly Thr 65 70 75 80

Thr His Leu Leu Arg Leu Thr Ser Ser Leu Thr Thr Lys Gly Ala Ser 85 90 95

Ser Phe Lys Ile Thr Arg Gly Ile Glu Ala Val Gly Gly Lys Leu Ser $100 \\ 105 \\ 110$

Val Thr Ala Thr Arg Glu Asn Met Ala Tyr Thr Val Glu Cys Leu Arg 115 120 125

Gly Asp Val Asp Ile Leu Met Glu Phe Leu Leu Asn Val Thr Thr Ala 130 135 140

Pro Glu Phe Arg Arg Trp Glu Val Ala Asp Leu Gln Pro Gln Leu Lys 145 150155155

Ile Asp Lys Ala Val Ala Phe Gln Asn Pro Gln Thr His Val Ile Glu 165 170 175

Asn Leu His Ala Ala Ala Tyr Arg Asn Ala Leu Ala Asn Pro Leu Xaa 180 185 190

Cys Pro Asp Tyr Arg Ile Gly Lys Val Thr Ser Glu Glu Val Pro Xaa 195 200 205

Lys Leu

210

<210> 1355

<211> 316

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (309)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1355

Ser Ser Ala Ser Leu Pro Gly Ala Val Ala Ala Leu Ser Pro Leu Arg 1 5 10 15

Ile Met Ala Thr Ala Glu Val Leu Asn Ile Gly Lys Lys Leu Tyr Glu 20 25 30

Gly Lys Thr Lys Glu Val Tyr Glu Leu Leu Asp Ser Pro Gly Lys Val

Leu Leu Gin Ser Lys Asp Gin Ile Thr Ala Gly Asn Ala Ala Arg Lys 50 55 60

Asn His Leu Glu Gly Lys Ala Ala Ile Ser Asn Lys Ile Thr Ser Cys 65 70 75 80

Ile Phe Gln Leu Leu Gln Glu Ala Gly Ile Lys Thr Ala Phe Thr Arg \$85\$ 90 95

Lys Cys Gly Glu Thr Ala Phe Ile Ala Pro Gln Cys Glu Met Ile Pro $100 \hspace{1cm} 105 \hspace{1cm} 110$

Ile Glu Trp Val Cys Arg Arg Ile Ala Thr Gly Ser Phe Leu Lys Arg 115 120 125

Asn Pro Gly Val Lys Glu Gly Tyr Lys Phe Tyr Pro Pro Lys Val Glu 130 135 140

Leu Phe Phe Lys Asp Asp Ala Asn Asn Asp Pro Gln Trp Ser Glu Glu 145 150 155 160

Gln Leu Ile Ala Ala Lys Phe Cys Phe Ala Gly Leu Leu Ile Gly Gln 165 170 175

Thr Glu Val Asp Ile Met Ser His Ala Thr Gln Ala Ile Phe Glu Ile 180 185 190 Leu Glu Lys Ser Trp Leu Pro Gln Asn Cys Thr Leu Val Asp Met Lys 195 200 205

Ile Glu Phe Gly Val Asp Val Thr Thr Lys Glu Ile Val Leu Ala Asp 210 215 220

Val Ile Asp Asn Asp Ser Trp Arg Leu Trp Pro Ser Gly Asp Arg Ser 225 230 235 240

Gln Gln Lys Asp Lys Gln Ser Tyr Arg Asp Leu Lys Glu Val Thr Pro \$245\$

Glu Gly Leu Gln Met Val Lys Lys Asn Phe Glu Trp Val Ala Glu Arg 260 265 270

Val Glu Leu Leu Leu Lys Ser Glu Ser Gln Cys Arg Val Val Leu 275 280 285

Met Gly Ser Thr Ser Asp Leu Gly His Cys Glu Lys Ile Lys Lys Ala 290 295 300

Cys Gly Asn Phe Xaa His Ser Met Val Asn Phe Glu 305 310 315

<210> 1356

<211> 368

<212> PRT

<213> Homo sapiens

<400> 1356

Pro Gly Ser Ala Cys Lys Ala Val Ser Ser Leu Pro Gln Glu Lys Met
1 5 10 15

Ala Val Ala Val Arg Thr Leu Glu Glu Glu Leu Glu Lys Ala Lys Glu
20 25 30

Ser Leu Lys Asn Val Asp Glu Asn Ile Arg Lys Leu Thr Gly Arg Asp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Pro Asn Asp Val Arg Pro Ile Gln Ala Arg Leu Leu Ala Leu Ser Gly \$50\$

Pro Gly Gly Gly Arg Gly Arg Gly Ser Leu Leu Leu Arg Arg Gly Phe 65 70 75 80

Ser Asp Ser Gly Gly Gly Pro Pro Ala Lys Gln Arg Asp Leu Glu Gly 85 90 95

Ala Val Ser Arg Leu Gly Gly Glu Arg Arg Thr Arg Arg Glu Ser Arg

			100					105					110		
Gln	Glu	Ser 115	Asp	Pro	Glu	Asp	Asp 120	Asp	Val	Lys	Lys	Pro 125	Ala	Leu	Gln
Ser	Ser 130	Val	Val	Ala	Thr	Ser 135	Lys	Glu	Arg	Thr	Arg 140	Arg	Asp	Leu	Ile
Gln 145	Asp	Gln	Asn	Met	Asp 150	Glu	Lys	Gly	Lys	Gln 155	Arg	Asn	Arg	Arg	11e 160
Phe	Gly	Leu	Leu	Met 165	Gly	Thr	Leu	Gln	Lys 170	Phe	Lys	Gln	Glu	Ser 175	Thr
Val	Ala	Thr	Glu 180	Arg	Gln	Lys	Arg	Arg 185	Gln	Glu	Ile	Glu	Gln 190	Lys	Leu
Glu	Val	Gln 195	Ala	Glu	Glu	Glu	Arg 200	Lys	Gln	Val	Glu	Asn 205	Glu	Arg	Arg
Glu	Leu 210	Phe	Glu	Glu	Arg	Arg 215	Ala	Lys	Gln	Thr	Glu 220	Leu	Arg	Leu	Leu
Glu 225	Gln	Lys	Val	Glu	Leu 230	Ala	Gln	Leu	Gln	Glu 235	Glu	Trp	Asn	Glu	His 240
Asn	Ala	Lys	Ile	11e 245	Lys	туг	Ile	Arg	Thr 250	Lys	Thr	Lys	Pro	His 255	Leu
Phe	Tyr	Ile	Pro 260	Gly	Arg	Met	Cys	Pro 265	Ala	Thr	Gln	Lys	Leu 270	Ile	Glu
Glu	Ser	Gln 275	Arg	Lys	Met	Asn	Ala 280	Leu	Phe	Glu	Gly	Arg 285	Arg	Ile	Glu
Phe	Ala 290	Glu	Gln	Ile	Asn	Lys 295	Met	Glu	Ala	Arg	Pro 300	Arg	Arg	Gln	Ser
Met 305	Lys	Glu	Lys	Glu	His 310	Gln	Val	Val	Arg	Asn 315	Glu	Glu	Gln	Lys	Ala 320
Glu	Gln	Glu	Glu	Gly 325	Lys	Val	Ala	Gln	Arg 330	Glu	Glu	Glu	Leu	Glu 335	Glu
Thr	Gly	Asn	Gln 340	His	Asn	Asp	Val	Glu 345	Lys	Lys	Glu	Lys	Lys 350	Gly	Lys
Glu	Glu	Lys 355	Lys	Glu	Arg	Lys	Lys 360	Arg	Lys	Glu	Arg	Lys 365	Glu	Lys	Lys

<210> 1357 <211> 201 <212> PRT <213> Homo sapiens <400> 1357 Ala Leu Ile Met Ser Phe Ile Phe Glu Trp Ile Tyr Asn Gly Phe Ser 10 Ser Val Leu Gln Phe Leu Gly Leu Tyr Lys Lys Ser Gly Lys Leu Val Phe Leu Gly Leu Asp Asn Ala Gly Lys Thr Thr Leu Leu His Met Leu Lys Asp Asp Arg Leu Gly Gln His Val Pro Thr Leu His Pro Thr Ser 55 Glu Glu Leu Thr Ile Ala Gly Met Thr Phe Thr Thr Phe Asp Leu Gly 65 70 75 Gly His Glu Gln Ala Arg Arg Val Trp Lys Asn Tyr Leu Pro Ala Ile Asn Gly Ile Val Phe Leu Val Asp Cys Ala Asp His Ser Arg Leu Val 105 Glu Ser Lys Val Glu Leu Asn Ala Leu Met Thr Asp Glu Thr Ile Ser 115 120 Asn Val Pro Ile Leu Ile Leu Gly Asn Lys Ile Asp Arg Thr Asp Ala 130 135 Ile Ser Glu Glu Lys Leu Arg Glu Ile Phe Gly Leu Tyr Gly Gln Thr Thr Gly Lys Gly Asn Val Thr Leu Lys Glu Leu Asn Ala Arg Pro Met 170 Glu Val Phe Met Cys Ser Val Leu Lys Arg Gln Gly Tyr Gly Glu Gly 180 185 190

200

Phe Arq Trp Leu Ser Gln Tyr Ile Asp

195

<210> 1358 <211> 224

<212> PRT

<213> Homo sapiens

<220> <221> SITE

<222> (71) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (169)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (196)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (221)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1358

Val Ser Gln Cys Ala Ala Arg Tyr Gly Pro Thr Gly Pro Arg Gly Arg 1 5 10 15

Arg Arg His Gly Ala Val Phe Asp Leu Asp Leu Glu Thr Glu Glu Glv 20 25

Ser Glu Gly Glu Glu Pro Glu Leu Ser Pro Ala Asp Ala Cys Pro

Leu Ala Glu Leu Arg Ala Ala Gly Leu Glu Pro Val Gly His Tyr Glu

Glu Val Phe Gln Val Arg Xaa Val Gln Gly Thr Asn Leu Gly Lys Ile 65 70 75

Tyr Ala Met Lys Val Leu Arg Lys Ala Lys Ile Val Arg Asn Ala Lys

Asp Thr Ala His Thr Arg Ala Glu Arg Asn Ile Leu Glu Ser Val Lys 105

His Pro Phe Ile Val Glu Leu Ala Tyr Ala Phe Gln Thr Gly Gly Lys 115 120 125

Xaa Tyr Leu Ile Leu Glu Cys Leu Ser Gly Gly Glu Leu Phe Thr His 130 135 140

Leu Gly Ala Arg Gly His Leu Pro Gly Lys Ile Arg Pro Ala Ser Thr

145 150 155 160

Trp Leu Arg Ser Arg Trp Pro Trp Xaa Ile Ser Thr Pro Arg Ala Ser 165 170 175

Ser Thr Gly Asp Leu Lys Pro Glu Glu His His Gly Ser Ala Ala Arg \$180\$

Ala His Ile Xaa Thr Asp Arg Leu Leu Asp Phe Trp Gln Gly Val Leu 195 \$200\$

Phe His Gly Gly Arg Pro Ser Ile Asp Asn Phe Leu Xaa Ala Thr Ile 210 215 220

<210> 1359

<211> 336

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (225)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (230)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1359

Gly Gly Arg Pro Glu Thr Glu Lys Gly Glu Ser Gly Ser Phe Pro Ala $1 \ \ \,$ 10 $15 \ \ \,$

Arg Arg Thr Phe Glu Val Glu Lys Arg Thr Pro Gly Thr Cys Ala Gln
20 25 30

His Trp Asp Phe Leu Asp Ser Thr Met Thr Leu Asn Asn Val Thr Met 35 40 45

Arg	Gln 50	Gly	Thr	Val	Gly	Met 55	Gln	Pro	Gln	Gln	Gln 60	Arg	Trp	Ser	Ile
Pro 65	Ala	Asp	Gly	Arg	His 70	Leu	Met	Val	Gln	Lys 75	Glu	Pro	His	Gln	Tyr 80
ser	His	Arg	Asn	Arg 85	His	ser	Ala	Thr	Pro 90	Glu	Asp	His	Суз	Arg 95	Arg
Ser	Trp	ser	Ser 100	Asp	Ser	Thr	Asp	Ser 105	Val	Ile	Ser	Ser	Glu 110	Ser	Gly
Asn	Thr	Tyr 115	Tyr	Arg	Val	Val	Leu 120	Ile	Gly	Glu	Gln	Gly 125	Val	Gly	Lys
	130					135	Ala				140				
145					150		Asp			155					160
·	-			165			Ile		170			•		175	-
-			180	-			Asp	185	-				190	-	
		195					Thr 200					205			
	210		-			215	Arg	-		•	220			·	
225					230		Lys			235					240
				245	-	_	Ala		250					255	-
			260				Val	265				-	270		
		275		_			Arg 280		-	_		285	-		-
	290					295	Gln	-	_	-	300				-
Lys 305	Ala	Arg	Arg	Phe	Trp 310	Gly	Lys	Ile	Val	Ala 315	Lys	Asn	Asn	Lys	Asn 320

Met Ala Phe Lys Leu Lys Ser Lys Ser Cys His Asp Leu Ser Val Leu 325 \$330\$

<210> 1360

<211> 344 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 136

Thr Xaa Asn Leu Gln Arg Phe Gly Met Asn Gly Gln Met Leu Cys Asn 1 5 10 15

Leu Gly Lys Glu Arg Phe Leu Glu Leu Ala Pro Asp Phe Val Gly Asp 20 25 30

Ile Leu Trp Glu His Leu Glu Gln Met Ile Lys Glu Asn Gln Glu Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Thr Glu Asp Gln Tyr Glu Glu Asn Ser His Leu Thr Ser Val Pro His 50 55 60

Trp Ile Asn Ser Asn Thr Leu Gly Phe Gly Thr Glu Gln Ala Pro Tyr

Gly Met Gln Thr Gln Asn Tyr Pro Lys Gly Gly Leu Leu Asp Ser Met 85 90 95

Cys Pro Ala Ser Thr Pro Ser Val Leu Ser Ser Glu Gln Gln Fhe Gln 100 105 110

Met Phe Pro Lys Ser Arg Leu Ser Ser Val Ser Val Thr Tyr Cys Ser 115 120 125

Val Ser Gln Asp Phe Pro Gly Ser Asn Leu Asn Leu Leu Thr Asn Asn 130 135 140

Ser Gly Thr Pro Lys Asp His Asp Ser Pro Glu Asn Gly Ala Asp Ser 145 150 155 160

Phe Glu Ser Ser Asp Ser Leu Leu Gln Ser Trp Asn Ser Gln Ser Ser

165 170 175 Leu Leu Asp Val Gln Arg Val Pro Ser Phe Glu Ser Phe Glu Asp Asp 185 Cys Ser Gln Ser Leu Cys Leu Asn Lys Pro Thr Met Ser Phe Lys Asp 200 Tyr Ile Gln Glu Arg Ser Asp Pro Val Glu Gln Glv Lvs Pro Val Ile 215 Pro Ala Ala Val Leu Ala Gly Phe Thr Gly Ser Gly Pro Ile Gln Leu 230 235 Trp Gln Phe Leu Leu Glu Leu Leu Ser Asp Lys Ser Cys Gln Ser Phe 250 Ile Ser Trp Thr Gly Asp Gly Trp Glu Phe Lys Leu Ala Asp Pro Asp 265 Glu Val Ala Arg Arg Trp Gly Lys Arg Lys Asn Lys Pro Lys Met Asn Tyr Glu Lys Leu Ser Arg Gly Leu Arg Tyr Tyr Tyr Asp Lys Asn Ile 295 300 Ile His Lys Thr Ser Gly Lys Arg Tyr Val Tyr Arg Phe Val Cys Asp 310 315 Leu Gln Asn Leu Leu Gly Phe Thr Pro Glu Glu Leu His Ala Ile Leu 325 330 335 Gly Val Gln Pro Asp Thr Glu Asp 340 <210> 1361 <211> 137 <212> PRT <213> Homo sapiens

<400> 1361 Ala Ser Al

Ala Ser Ala His Thr Cys Thr Pro Pro Gly His Ser Thr Met Pro Ala 1 5 10 15

Cys Arg Leu Gly Pro Leu Ala Ala Ala Leu Leu Leu Ser Leu Leu Leu 20 25 30

Phe Gly Phe Thr Leu Val Ser Gly Thr Gly Ala Glu Lys Thr Gly Val

Cys Pro Glu Leu Gln Ala Asp Gln Asn Cys Thr Gln Glu Cys Val Ser 50 60

Asp Ser Glu Cys Ala Asp Asn Leu Lys Cys Cys Ser Ala Gly Cys Ala 65 70 75 80

Thr Phe Cys Ser Leu Pro Asn Asp Lys Glu Gly Ser Cys Pro Gln Val

Asn Ile Asn Phe Pro Gin Leu Gly Leu Cys Arg Asp Gln Cys Gln Val 100 \$105\$

Asp Ser Gln Cys Pro Gly Gln Met Lys Cys Cys Arg Asn Gly Cys Gly 115 120 125

Lys Val Ser Cys Val Thr Pro Asn Phe 130 135

<210> 1362

<211> 162

<212> PRT

<213> Homo sapiens

<400> 1362

Thr Lys Leu Val Met Met Gln Lys Leu Leu Lys Cys Ser Arg Leu Val $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Ala Leu Ile Leu Val Leu Glu Ser Ser Val Gln Gly Tyr 20 25 30

Pro Thr Gln Arg Ala Arg Tyr Gln Trp Val Arg Cys Asn Pro Asp Ser 35 40 45

Asn Ser Ala Asn Cys Leu Glu Glu Lys Gly Pro Met Phe Glu Leu Leu 50 60

Pro Gly Glu Ser Asn Lys Ile Pro Arg Leu Arg Thr Asp Leu Phe Pro 65 70 75 80

Lys Thr Arg Ile Gln Asp Leu Asn Arg Ile Phe Pro Leu Ser Glu Asp $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Tyr Ser Gly Ser Gly Phe Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser 100 105 110

Gly Ser Gly Phe Leu Thr Glu Met Glu Gln Asp Tyr Gln Leu Val Asp 115 120 125

Glu Ser Asp Ala Phe His Asp Asn Leu Arg Ser Leu Asp Arg Asn Leu 130 135 140

Pro Ser Asp Ser Gln Asp Leu Gly Gln His Gly Leu Glu Glu Asp Phe 145 150 155 160

Met Leu

<210> 1363

<211> 136

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1363

Thr Pro Thr Pro Phe Gly Ser Ala Arg Ala Pro Gln Ala Arg Pro Gly 1 5 10 15

Arg Arg Asp Gly Arg Met Ser Gly Gly Arg Arg Lys Glu Glu Pro Pro

Gln Pro Gln Leu Ala Asn Gly Ala Leu Lys Val Ser Val Trp Ser Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Val Leu Arg Ser Asp Ala Ala Trp Glu Asp Lys Asp Glu Phe Leu Asp 50 55 60

Val Ile Tyr Trp Phe Arg Gln Ile Ile Ala Val Val Leu Gly Val Ile 65 70 75 80

Leu Gly Ser Phe Ala Ile Thr Arg Val Leu Gly Asn Ser Arg Ile Leu $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Pro Asp Gln Cys Lys Ser Pro Cys Thr Xaa Thr Ser Ala Ile Thr Thr 100 105 110

Asp

<210> 1364

<211> 217

<212> PRT

<213> Homo sapiens <220> <221> SITE <222> (1) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (33) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1364 Xaa Gly Gly Arg Ser Ser Ser Ser Thr Met Ser Thr Gly Gly Asp Phe 15 Gly Asn Pro Leu Arg Lys Phe Lys Leu Val Phe Leu Gly Glu Gln Ser 25 Xaa Gly Lys Thr Ser Leu Ile Thr Arq Phe Met Tyr Asp Ser Phe Asp Asn Thr Tyr Gln Ala Thr Ile Gly Ile Asp Phe Leu Ser Lys Thr Met 50 55 60 Tyr Leu Glu Asp Arg Thr Val Arg Leu Gln Leu Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Ser Leu Ile Pro Ser Tyr Ile Arg Asp Ser Thr 90 Val Ala Val Val Tyr Asp Ile Thr Asn Val Asn Ser Phe Gln Gln 100 105 Thr Thr Lys Trp Ile Asp Asp Val Arg Thr Glu Arg Gly Ser Asp Val 115 120 Ile Ile Met Leu Val Gly Asn Lys Thr Asp Leu Ala Asp Lys Arg Gln Val Ser Ile Glu Glu Gly Glu Arg Lys Ala Lys Glu Leu Asn Val Met 150 155 Phe Ile Glu Thr Ser Ala Lys Ala Gly Tyr Asn Val Lys Gln Leu Phe 165 Arg Arg Val Ala Ala Ala Leu Pro Gly Met Glu Ser Thr Gln Asp Arg 180 185 Ser Arg Glu Asp Met Ile Asp Ile Lys Leu Glu Lys Pro Gln Glu Gln 200

<221> SITE <222> (46)

<220>

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Pro Val Ser Glu Gly Gly Cys Ser Cys
    210
<210> 1365
<211> 103
<212> PRT
<213> Homo sapiens
<400> 1365
Lys Ser Leu Asp Ser Val Glu Leu Ser Arg Ser Phe Thr Ile Tyr Ser
                                   10
Ser Val Cys Lys Leu Tyr Leu Leu Tyr Ser Gln Ser Ile Phe Thr Val
             20
                           25
Leu Thr Ile Asp Ser Phe Pro Leu Leu Ile Phe Phe Phe Val Asn Gly
                            40
Ser Cys Asp Phe Arg Trp Gly Ile Phe Ser Ser Pro Lys Arg Ile Asp
Ser Phe Ser Arg Phe Ile Ile Ile Asp Cys Gln Glu Arg Thr Leu Gln
                    70
                                       75
Gln Gly Cys Thr Leu Asn Ala Val Asp Gly Leu Ser Ser Arg Ile Tyr
Arg Leu Gly Leu Met Pro Met
           100
<210> 1366
<211> 73
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1366
Arg His Cys Met Val Ser Ala Val Val Pro Leu Phe Ile Ser Pro Pro
Asp Xaa Phe Ile Pro His Leu Ile Phe Phe Leu Ala Ala Phe Asn Glu
             20
                                 25
Ser Phe Ile Leu Glu Thr Leu Tyr Ile Phe Gly Phe His Xaa Thr Ile
Leu Thr Leu Phe Cys Pro Val Thr Phe Leu Lys Lys Thr Lys Thr Lys
                         55
Asn Pro Phe Xaa Leu Phe Lys Phe Trp
                    70
<210> 1367
<211> 238
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (199)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (202)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (211)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (229)
<223> Xaa equals any of the naturally occurring L-amino acids
Gly Ile Asp Pro Arg Val Arg Leu Ala Pro Leu Gly Leu Gln Val Ser
                 5
                                    10
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Val Glu Gln Arg Thr Pro Val Ser Val Pro Gln Met Gly Phe Val Lys \$20\$

Val Val Lys Asn Lys Ala Tyr Phe Lys Arg Tyr Gln Val Lys Phe Arg \$35\$

Arg Arg Glu Gly Lys Thr Asp Tyr Tyr Ala Arg Lys Arg Leu Val50 60

Ile Gln Asp Lys Asn Lys Tyr Asn Thr Pro Lys Tyr Arg Met Ile Val 65 70 75 80

Arg Val Thr Asn Arg Asp Ile Ile Cys Gln Ile Ala Tyr Ala Arg Ile 85 \$90\$

Glu Gly Asp Met Ile Val Cys Ala Ala Tyr Ala His Glu Leu Pro Lys 100 105 110

Tyr Gly Val Lys Val Gly Leu Thr Asn Tyr Ala Ala Ala Tyr Cys Thr 115 120 125

Gly Leu Leu Leu Ala Arg Arg Leu Leu Asn Arg Phe Gly Met Asp Lys 130 135 140

Ile Tyr Glu Gly Gln Val Glu Val Thr Gly Asp Glu Tyr Asn Val Glu 145 150 155 160

Ser Ile Asp Gly Gln Pro Gly Ala Phe Thr Cys Tyr Leu Asp Ala Gly 165 170 175

Ala Val Asp Gly Gly Leu Xaa Ile Pro Xaa Ser Thr Lys Arg Phe Pro 195 _ 200 205

Gly Tyr Xaa Ser Glu Ser Lys Glu Phe Asn Ala Glu Val His Arg Lys $210 \hspace{1.5cm} 215 \hspace{1.5cm} 220 \hspace{1.5cm}$

His Ile Met Gly Xaa Glu Trp Leu Gln Ile Thr Cys Ala Thr 225 230 235

<210> 1368

<211> 173

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (149) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (150) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1368 Gly Asp Ser Gln Gly Pro Ala Ser Asp Trp Arg Val Arg Asp Leu Arg 10 Pro Val Trp Gly Arg Trp Arg Pro Ala Gln His Leu Lys Ile Thr Asp Ser Ala Gly His Ile Leu Tyr Ser Lys Glu Asp Ala Thr Lys Gly Lys 40 Phe Ala Phe Thr Thr Glu Asp Tyr Asp Met Phe Glu Val Cys Phe Glu 50 55 Ser Lys Gly Thr Gly Arg Ile Pro Asp Gln Leu Val Ile Leu Asp Met Lys His Gly Val Glu Ala Lys Asn Tyr Glu Glu Ile Ala Lys Val Glu

Lys Leu Lys Pro Leu Glu Val Glu Leu Arg Arg Leu Glu Asp Leu Ser 105 Glu Ser Ile Val Asn Asp Phe Ala Tyr Met Lys Lys Arg Glu Glu Glu 120

Met Arg Asp Thr Asn Glu Ser Thr Asn Thr Arg Val Leu Tvr Phe Ser 135

Ile Phe Ser Met Xaa Xaa Leu Ile Gly Leu Ala Thr Trp Gln Val Phe 145 150 160

Tyr Leu Arg Arg Phe Phe Lys Ala Lys Lys Leu Ile Glu 165 170

<210> 1369 <211> 98

<212> PRT

<213> Homo sapiens

100

115

<400> 1369

Leu Cys Tyr Leu Asp Ile Cys Gly Lys Ala Glu Ser Phe Leu Thr Val

1 5 10 15

Lys Ala Glu Val Ser Thr Gly Gly Asn Leu Leu Val Val Ser Pro Thr

Thr Leu Pro Arg Val Leu Ser Thr Lys Glu Val Lys Arg Thr Glu Lys 35 40 45

Glu Ile Ser Ile Ser Ala Ala Arg Ala Gly Ile Cys Leu Pro Asp Ser 50 55 60

Leu Cys Phe Leu Phe His Arg His Pro Phe Arg Arg Glu Leu His Gln 65 70 75 80

Phe Ile Met Arg Val Arg Glu Ala Lys Ala Leu Arg Cys Val Gln Gly $85 \hspace{1cm} 90 \hspace{1cm} 95$

Val Thr

<210> 1370

<211> 168

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1370

Pro Ala Leu Gly Arg Phe Cys Gly Ser Lys Lys Pro Glu Pro Val Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ala Thr Gly Ser Arg Met Phe Leu Arg Phe Tyr Ser Asp Asn Ser Val 20 25 30

Gln Arg Lys Gly Phe Gln Ala Ser His Ala Thr Glu Cys Gly Gln 35 40 45

Gly Asp Asn Asn Tyr Pro Gly Gly Val Asp Cys Glu Trp Val Ile Val 65 70 75 80

Ala Glu Glu Gly Tyr Gly Val Glu Leu Val Phe Gln Thr Phe Glu Val 85 90 95 Glu Glu Glu Thr Asp Cys Gly Tyr Asp Tyr Met Glu Leu Phe Asp Gly 105 Tyr Asp Ser Thr Ala Pro Arg Leu Gly Arg Tyr Cys Gly Ser Xaa Pro 120 Pro Glu Glu Val Tyr Ser Ala Gly Asp Ser Ala Val Ser His Ser Ile 130 135 His His Thr Lys Lys Gly Phe His Leu Arg Tyr Thr Ser Thr Lys Phe 155 Gln Asp Thr Leu His Ser Arg Lys 165 <210> 1371 <211> 141 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (131) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (139) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1371 Phe Asp Arg Gly Ala Arg Leu Pro Asp Gly Leu Gly Leu Trp Ser Leu 10 Arg Gly Pro Leu Arg Arg Leu Val Leu Phe Tyr Gln Gly Lys Leu Cys 20 Ser Met Ala Gly Asn Phe Trp Gln Ser Ser His Tyr Leu Gln Trp Ile Leu Asp Lys Gln Asp Leu Leu Lys Glu Arg Gln Lys Asp Leu Lys Phe 55 Leu Ser Glu Glu Glu Tyr Trp Lys Leu Gln Ile Phe Phe Thr Asn Val

70

85

Ile Gln Ala Leu Gly Glu His Leu Lys Leu Arg Gln Gln Val Ile Ala

90

65

Thr Ala Thr Val Tyr Phe Lys Arg Phe Tyr Ala Arg Tyr Ser Leu Lys 100 105 110

Ser Ile Asp Pro Val Leu Met Ala Pro Thr Cys Val Phe Leu Ala Ser 115 120 125

Lys Val Xaa Gly Lys Lys Ile Phe Phe Phe Xaa Gly Gly 130 135 140

<210> 1372

<211> 327

<212> PRT <213> Homo sapiens

•

<400> 1372

Lys Gly Val Phe Gly Phe Arg Trp Gly Leu Ala Ala Pro Glu Pro Ser 1 5 10 15

Met Ala Ser Ser Arg Ala Ser Ser Thr Ala Thr Lys Thr Lys Ala Pro \$20\$

Asp Asp Leu Val Ala Pro Val Val Lys Lys Pro His Ile Tyr Tyr Gly \$35\$ \$40\$

Ser Leu Glu Glu Lys Glu Arg Glu Arg Leu Ala Lys Gly Glu Ser Gly 50 55 60

Ile Leu Gly Lys Asp Gly Leu Lys Ala Gly Ile Glu Ala Gly Asn Ile 65 70 75 80

As Ile Thr Ser Gly Glu Val Phe Glu Ile Glu Glu His Ile Ser Glu 85 90 95

Arg Gln Ala Glu Val Leu Ala Glu Phe Glu Arg Arg Lys Arg Ala Arg $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Gln Ile Asn Val Ser Thr Asp Asp Ser Glu Val Lys Ala Cys Leu Arg 115 \$120\$ 125

Ala Leu Gly Glu Pro Ile Thr Leu Phe Gly Glu Gly Pro Ala Glu Arg 130 135 140

Arg Glu Arg Leu Arg Asn Ile Leu Ser Val Val Gly Thr Asp Ala Leu 145 150 155 160

Lys Lys Thr Lys Lys Asp Asp Glu Lys Ser Lys Lys Ser Lys Glu Glu
165 170 175

Tyr Gln Gln Thr Trp Tyr His Glu Gly Pro Asn Ser Leu Lys Val Ala

180 185 190

Arg Leu Trp Ile Ala Asn Tyr Ser Leu Pro Arg Ala Met Lys Arg Leu 195 200 205

Glu Glu Ala Arg Leu His Lys Glu Ile Pro Glu Thr Thr Arg Thr Ser 210 215 220

Gln Met Gln Glu Leu His Lys Ser Leu Arg Ser Leu Asn Asn Phe Cys 225 230 235 240

Ser Gln Ile Gly Asp Asp Arg Pro Ile Ser Tyr Cys His Phe Ser Pro 245 250 255

Asn Ser Lys Met Leu Ala Thr Ala Cys Trp Ser Gly Leu Cys Lys Leu 260 265 270

Trp Ser Val Pro Asp Cys Asn Leu Leu His Thr Leu Arg Gly His Asn 275 280 285

Thr Asn Val Gly Ala Ile Val Phe His Pro Lys Ser Thr Val Ser Leu 290 295 300

Asp Pro Lys Asp Val Asn Leu Ala Ser Cys Ala Ala Asp Gly Ser Val 305 310 315 320

Lys Leu Trp Ser Leu Asp Arg 325

<210> 1373

<211> 47

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1373

Gly Thr His His Gln Ala Gln Pro Asn Phe Val Phe Phe Leu Xaa Arg 1 5 10 15

Trp Gly Phe Ile Thr Xaa Pro Arg Leu Ile Ser Asn Leu Trp Ala Gln

20 25 30

<210> 1374

<211> 114

<212> PRT

<213> Homo sapiens

<400> 1374

Ala Ala Thr Lys Val Thr Leu Ser Leu Asp Thr Ala Ser Val Leu Ser 1 $$ 15

Pro Cys Phe Thr Gly His Ser Ile Ser Leu Gln Pro Ser Leu Cys Ala 20 25 30

Ser Ala Ile Phe Thr His His Gly Ala Glu Val \mbox{Arg} Arg Gly Ser Leu 35 40 45

Gly Ile Trp Arg Pro Val Lys Asp Gln Ala Trp Arg Ala Gln Gly Pro $50 \ \ 55 \ \ 60$

Thr Trp Ala Ser Ser Arg Gly Ala Pro Lys Gly Gln Glu His Pro Lys 65 70 75 80

Arg Arg Glu Gly Ser Gln Pro Pro Leu Thr Ala Ser Leu Gln Pro Ser 85 90 95

Pro Thr Leu Ile Thr Ile Ser Leu Gln Ala Phe Cys Leu Arg Asp Val $100 \ \ 105 \ \ \ 110$

Ala Pro

<210> 1375

<211> 100

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (93) <223> Xaa equals any of the naturally occurring L-amino acids Glu Ala Val Asn Glu Gln Leu Ser Ser Glu Arg Ser Asn Leu Ala Gln 10 Val Ile Arg Gln Glu Phe Glu Asp Arg Leu Ala Ala Ser Glu Glu Glu Thr Arg Gln Ala Lys Ala Glu Leu Ala Thr Leu Gln Ala Arg Gln Gln 40 Leu Glu Leu Glu Glu Val His Arg Arg Val Lys Thr Ala Leu Ala Arg 50 Lys Glu Glu Ala Val Ser Ser Leu Arg Thr Gln His Glu Val Ser Pro Cys Gly Gln Pro Cys Trp Thr Ser Gly Leu Gly Xaa Xaa Leu Thr Leu 85 90 Trp Val Cys Cys 100 <210> 1376 <211> 45 <212> PRT <213> Homo sapiens <400> 1376 Ile Arg His Glu Glu Thr Leu Ser Pro Gly His Phe Lys Ser Ile Thr 5 10 Gln Lys Lys Thr Leu Ile Phe Thr Phe Lys Ser His Met Gln Leu Leu 20 25 30

Thr Leu Thr Ser Ala Val Ile Val Leu Ala Ile Ile Pro

40

<210> 1377 <211> 230 <212> PRT

<213> Homo sapiens

35

<220>

<221> SITE

<22			qual	s an	y of	the	лаt	ural	ly o	ccur	ring	L-a	mino	aci	ds
<22	1> S 2> (162)	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
	0> 1 Pro		Gly	Ala 5	Pro	Gly	Arg	Pro	Gly 10	Leu	Arg	Arg	Arg	Arg 15	Arg
Arg	Arg	Arg	Arg 20	Arg	Ala	Asp	His	Val 25	Xaa	Ala	Lys	Glu	Asn 30	Pro	Cys
Arg	Lys	Phe 35	Gln	Ala	Asn	Ile	Phe 40	Asn	Lys	Ser	Lys	Cys 45	Gln	Asn	Cys
Phe	Lys 50	Pro	Arg	Glu	Ser	His 55	Leu	Leu	Asn	Asp	Glu 60	Asp	Leu	Thr	Gln
Ala 65	Lys	Pro	Ile	Tyr	Gly 70	Gly	Trp	Leu	Leu	Leu 75	Ala	Pro	Asp	Gly	Thr 80
Asp	Phe	Asp	Asn	Pro 85	Val	His	Arg	Ser	Arg 90	Lys	Trp	Gln	Arg	Arg 95	Phe
Phe	Ile	Leu	Tyr 100	Glu	His	Gly	Leu	Leu 105	Arg	Tyr	Ala	Leu	Asp 110	Glu	Met
Pro	Thr	Thr 115	Leu	Pro	Gln	Gly	Thr 120	Ile	Asn	Met	Asn	Gln 125	Cys	Thr	Asp
Val	val 130	Asp	Gly	Glu	Gly	Arg 135	Thr	Gly	Gln	Lys	Phe 140	Ser	Leu	Cys	Ile
Leu 145	Thr	Pro	Glu	Lys	Glu 150	His	Phe	Ile	Arg	Ala 155	Glu	Thr	Lys	Glu	Ile 160
Val	Xaa	Gly	Trp	Leu 165	Glu	Met	Leu	Met	Val 170	Tyr	Pro	Arg	Thr	Asn 175	Lys
Gln	Asn	Gln	Lys 180	Lys	Lys	Arg	Lys	Val 185	Glu	Pro	Pro	Thr	Pro 190	Gln	Glu
Pro	Gly	Pro 195	Ala	Lys	Trp	Leu	Leu 200	Pro	Ala	Ala	Ala	Ala 205	Ala	Ala	Ala
Ala	Ala 210	Ala	Ala	Ser	Pro	Val 215	Leu	Arg	Lys	Ser	Pro 220	Pro	Pro	Ser	Pro

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His Ser Gly Arg Lys Lys
225
<210> 1378
<211> 75
<212> PRT
<213> Homo sapiens
<400> 1378
Gly Lys Gln Lys Pro Leu Ser Ser Ala Phe His Leu Gln Glu Arg Arg
Lys Asn Ser Cys Leu Leu Ser Val Ile Gln Phe Ala Cys Ile Leu Cys
                                 25
Ser Cys Thr Asn Pro Tyr Arg Val Asn Leu Leu Ser Thr Ile Tyr Trp
                            40
Cys Leu Ile Glu Asn Asp Cys Leu Pro Ser Phe Leu Val Pro Phe Leu
Thr Val Leu Lys Tyr Leu Lys Cys Ile Asp Cys
 65
                     70
<210> 1379
<211> 239
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (229)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (231)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (234)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1379
Arg Arg Gly Gln Val Gly Ala Arg Ser Cys Cys Phe Trp Phe Ser Cys
```

Gly Arg Arg Cys Pro Ala Ala Leu Gly Cys Arg Thr Asp Lys Ala

Trp Ala Thr Ala Pro Gln Lys Pro Thr Gln Leu Asp Ala Gly Ala Gly 35 40 45

Arg Ala Pro Glu Gly Glu Arg Gly Gly Gly Gly Ser Ala Ala Gly 65 70 75 80

Arg Ala Gly Arg Gly Met Ser Met Pro Asp Ala Met Pro Leu Pro Gly

Val Gly Glu Glu Leu Lys Gln Ala Lys Glu Ile Glu Asp Ala Glu Lys $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Tyr Ser Phe Met Ala Thr Val Thr Lys Ala Pro Lys Lys Gln Ile Gln 115 120 125

Phe Ala Asp Asp Met Gln Glu Phe Thr Lys Phe Pro Thr Lys Thr Gly 130 135 140

Arg Arg Ser Leu Ser Arg Ser Ile Ser Gln Ser Ser Thr Asp Ser Tyr 145 150 155 160

Ser Ser Ala Ala Ser Tyr Thr Asp Ser Ser Asp Asp Glu Val Ser Pro\$165\$ \$170\$ \$175\$

Arg Glu Lys Gln Gln Thr Asn Ser Lys Gly Ser Ser Asn Phe Cys Val \$180\$

Lys Asn Ile Lys Gln Ala Glu Phe Gly Arg Arg Glu Ile Glu Ile Ala 195 \$200\$

Glu Gln Asp Met Ser Ala Leu Ile Ser Leu Arg Lys Arg Ala Gln Gly 210 \$215\$

Glu Lys Pro Leu Xaa Gly Xaa Lys Ile Xaa Gly Leu Thr His Tyr 225 \$230\$

<210> 1380 <211> 97

<212> PRT

<213> Homo sapiens

<400> 1380

Ser Cys Ala Asp Ile Val Ser Cys Val Ser Ala Val Ala Val Glu Glu Leu Lys Leu Gly Lys Met Val Cys Ile Pro Cys Ile Val Ile Pro Val Leu Leu Trp Ile Tyr Lys Lys Phe Leu Glu Pro Tyr Ile Tyr Pro Leu 35 40 45 Val Ser Pro Phe Val Ser Arg Ile Trp Pro Lys Lys Ala Ile Gln Glu 55 Ser Asn Asp Thr Asn Lys Gly Lys Val Asn Phe Lys Gly Ala Asp Met Asn Gly Leu Pro Thr Lys Gly Pro Thr Glu Ile Cys Asp Lys Lys Asp <210> 1381 <211> 618 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (507) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (524) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (562) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1381 Pro Arg Val Arg Pro Arg Val Arg Ser Ile Thr Met Ser Val Arg Tyr Ser Ser Ser Lys His Tyr Ser Ser Ser Arg Ser Gly Gly Gly Gly 25 30

Gly Gly Gly Gly Gly Gly Gly Gly Val Ser Ser Leu Arg Ile Ser

PCT/US00/05988

35 40 45 Ser Ser Lys Gly Ser Leu Gly Gly Gly Phe Ser Ser Gly Gly Phe Ser 55 Gly Gly Ser Phe Ser Arg Gly Ser Ser Gly Gly Gly Cys Phe Gly Gly Ser Ser Gly Gly Tyr Gly Gly Leu Gly Gly Phe Gly Gly Gly Ser Phe Arg Gly Ser Tyr Gly Ser Ser Ser Phe Gly Gly Ser Tyr Gly Gly Ser 100 Phe Gly Gly Ser Phe Gly Gly Gly Ser Phe Gly Gly Gly Ser Phe 120 Gly Gly Gly Phe Gly Gly Gly Phe Gly Gly Phe Gly Gly Phe Gly Gly Gly Phe Gly Gly Asp Gly Gly Leu Leu Ser Gly Asn Glu Lys Val Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg 165 170 Ala Leu Glu Glu Ser Asn Tyr Glu Leu Glu Gly Lys Ile Lys Glu Trp 185 Tyr Glu Lys His Gly Asn Ser His Gln Gly Glu Pro Arg Asp Tyr Ser 195 Lys Tyr Tyr Lys Thr Ile Asp Asp Leu Lys Asn Gln Ile Leu Asn Leu Thr Thr Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp Asn Ala Arg Leu 230 Ala Ala Asp Asp Phe Arg Leu Lys Tyr Glu Asn Glu Val Ala Leu Arg 245 250 255 Gln Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp Glu 260 Leu Thr Leu Thr Lys Ala Asp Leu Glu Met Gln Ile Glu Ser Leu Thr Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu Met Lys Asp 290 295 300

Leu Arg Asn Val Ser Thr Gly Asp Val Asn Val Glu Met Asn Ala Ala

305					310					315					320
Pro	Gly	Val	Asp	Leu 325	Thr	Gln	Leu	Leu	Asn 330	Asn	Met	Arg	Ser	Gln 335	Tyr
Glu	Gln	Leu	Ala 340	Glu	Gln	Asn	Arg	Lys 345	Asp	Ala	Glu	Ala	Trp 350	Phe	Asn
Glu	Lys	Ser 355	Lys	Glu	Leu	Thr	Thr 360	Glu	Ile	Asp	Asn	Asn 365	Ile	Glu	Gln
Ile	Ser 370	ser	Tyr	Lys	Ser	Glu 375	Ile	Thr	Glu	Leu	Arg 380	Arg	Asn	Val	Gln
Ala 385	Leu	Glu	Ile	Glu	1eu 390	Gln	Ser	Gln	Leu	Ala 395	Leu	Lys	Gln	Ser	Leu 400
Glu	Ala	Ser	Leu	Ala 405	Glu	Thr	Glu	Gly	Arg 410	Tyr	Cys	Val	Gln	Leu 415	Ser
Gln	Ile	Gln	Ala 420	Gln	Ile	Ser	Ala	Leu 425	Glu	Glu	Gln	Leu	Gln 430	Gln	Ile
Arg	Ala	Glu 435	Thr	Glu	Cys	Gln	Asn 440	Thr	Glu	Tyr	Gln	Gln 445	Leu	Leu	Asp
Ile	Lys 450	Ile	Arg	Leu	Glu	Asn 455	Glu	Ile	Gln	Thr	Туг 460	Arg	Ser	Leu	Leu
Glu 465	Gly	Glu	Gly	Ser	Ser 470	Gly	Gly	Gly	Gly	Arg 475	Gly	Gly	Gly	Ser	Phe 480
Gly	Gly	Gly	Tyr	Gly 485	Gly	Gly	Ser	Ser	Gly 490	Gly	Gly	Ser	Ser	Gly 495	Gly
Gly	His	Gly	Gly 500	Ser	Ser	Gly	Gly	Gly 505	Tyr	Xaa	Gly	Gly	Ser 510	Ser	Gly
Gly	Gly	Ser 515	Ser	Gly	Gly	Gly	Tyr 520	Gly	Gly	Gly	Xaa	Pro 525	Ala	Ala	Ala
Thr	Ala 530	Ala	Val	Pro	Ala	Ala 535	Ala	Thr	Val	Val	Ala 540	Val	Pro	Ala	Ala
Ala 545	Ala	Ala	Ala	Thr	Gly 550	Ala	Ala	Leu	Arg	Arg 555	Arg	His	Ser	Ser	Gly 560
Gly	Xaa	Tyr	Gly	Gly 565	Gly	Thr	Ala	Pro	Ala 570	Ala	Asp	Thr	Ala	Ala 575	Ala
Gln	Leu	Arg	Arg	Arg	Ile	Arg	Arg	Arg	His	Ser	Ser	Gly	Gly	His	Lys

580 585 590

Ser Ser Ser Ser Gly Ser Val Gly Glu Ser Ser Ser Lys Gly Pro Arg 595 600 605

Ser Ala Glu Thr Ser Trp Gly Asn Gln Asn 610 615

<210> 1382

<211> 500

<212> PRT

<213> Homo sapiens

<400> 1382

Gln Ala Trp Ser Leu Gln Val Ala Leu Ser Pro Phe Phe Phe Pro Ala 1 5 10 15

Ser Pro Ser Asn Ser Phe Ala Ala Ala Val Pro Gln Leu Leu Phe Pro $20 \hspace{1cm} 25 \hspace{1cm} 30$

Glu Leu Pro Leu Pro His Val Pro Gly Gln Glu Ser Ala Lys Arg Arg 35 \$40\$

Ser Ala Arg Arg Phe Leu Ile Met Ser Glu Leu Thr Lys Glu Leu Met $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60 \hspace{1.5cm}$

Glu Leu Val Trp Gly Thr Lys Ser Ser Pro Gly Leu Ser Asp Thr Ile 65 70 75 80

Phe Cys Arg Trp Thr Gln Gly Phe Val Phe Ser Glu Ser Glu Gly Ser 85 9095

Ala Leu Glu Gln Phe Glu Gly Gly Pro Cys Ala Val Ile Ala Pro Val 100 $$105\$

Gln Ala Phe Leu Leu Lys Lys Leu Leu Phe Ser Ser Glu Lys Ser Ser 115 120 125

Trp Arg Asp Cys Ser Glu Glu Glu Gln Lys Glu Leu Leu Cys His Thr 130 135 140

Leu Cys Asp Ile Leu Glu Ser Ala Cys Cys Asp His Ser Gly Ser Tyr 145 150 155 160

Cys Leu Val Ser Trp Leu Arg Gly Lys Thr Thr Glu Glu Thr Ala Ser 165 170 175

Ile Ser Gly Ser Pro Ala Glu Ser Ser Cys Gln Val Glu His Ser Ser 180 185 190

Ala	Leu	Ala 195		Glu	Glu	Leu	Gly 200		Glu	Arg	Phe	His 205		Leu	Ile
Gln	Lys 210	Arg	Ser	Phe	Arg	Ser 215		Pro	Glu	Leu	Lys 220	Asp	Ala	Val	Leu
Asp 225	Gln	Tyr	Ser	Met	Trp 230	Gly	Asn	Lys	Phe	Gly 235	Val	Leu	Leu	Phe	Leu 240
Tyr	Ser	Val	Leu	Leu 245	Thr	Lys	Gly	Ile	Glu 250	Asn	Ile	Lys	Asn	Glu 255	Ile
Glu	Asp	Ala	Ser 260	Glu	Pro	Leu	Ile	Asp 265		Val	Tyr	Gly	His 270	Gly	Ser
Gln	Ser	Leu 275	Ile	Asn	Leu	Leu	Leu 280	Thr	Gly	His	Ala	Val 285	Ser	Asn	Val
Trp	Asp 290	Gly	Asp	Arg	Glu	Cys 295	Ser	Gly	Met	Lys	1eu 300	Leu	Gly	Ile	His
Glu 305	Gln	Ala	Ala	Val	Gly 310	Phe	Leu	Thr	Leu	Met 315	Glu	Ala	Leu	Arg	Tyr 320
Cys	Lys	Val	Gly	Ser 325	Tyr	Leu	Lys	Ser	Pro 330	Lys	Phe	Pro	Ile	Trp 335	Ile
Val	Gly	Ser	Glu 340	Thr	His	Leu	Thr	Val 345	Phe	Phe	Ala	Lys	Asp 350	Met	Ala
Leu	Val	Ala 355	Pro	Glu	Ala	Pro	Ser 360	Glu	Gln	Ala	Arg	Arg 365	Val	Phe	Gln
Thr	Tyr 370	Asp	Pro	Glu	Asp	Asn 375	Gly	Phe	Ile	Pro	Asp 380	Ser	Leu	Leu	Glu
Asp 385	Val	Met	Lys	Ala	Leu 390	Asp	Leu	Val	Ser	Asp 395	Pro	Glu	Tyr	Ile	Asn 400
Leu	Met	Lys	Asn	Lys 405	Leu	Asp	Pro	Glu	Gly 410	Leu	Gly	Ile	Ile	Leu 415	Leu
Gly	Pro	Phe	Leu 420	Gln	Glu	Phe	Phe	Pro 425	Asp	Gln	Gly	Ser	Ser 430	Gly	Pro
Glu		Phe 435	Thr	Val	Tyr	His	Tyr 440	Asn	Gly	Leu	Lys	Gln 445	Ser	Asn	Tyr
Asn	Glu 450	Lys	Val	Met		Val 455	Glu	Gly	Thr	Ala	Val 460	Val	Met	Gly	Phe

Glu Asp Pro Met Leu Gln Thr Asp Asp Thr Pro Ile Lys Arg Cys Leu 465 470 475 Gln Thr Lys Trp Pro Tyr Ile Glu Leu Leu Trp Thr Thr Asp Arg Ser 490 Pro Ser Leu Asn 500 <210> 1383 <211> 175 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (80) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (133) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1383 Leu Cys Asp Ser Glu Glu Val Ala Trp Glu Leu Gly Glu Ala Gln Arg Met Pro Pro Gly Glu Ser Pro His His Gln Cys Ile Thr Ser Asn Val 25 Pro Leu Glu Arg Pro Pro Leu Cys Ser Val Met Phe Gln Lys Leu Leu 35 40 Met Lys Gln His Val Leu Val Ala Cys Ala Leu Ala Cys His Asp Ser Pro Leu Thr Gly Pro Pro Val Lys Ser Lys Gly Leu Pro Ala Ala Xaa Ser Glu Ala Ser Ala Glu Ser Ser His Pro His Gly Ser Gly Glu Val 90 85 Ile Thr Leu Ser Arg Arg Ser Asp His Thr Ser Ser Ser Pro Arg Gly 100 105 Leu Leu Ile Leu Gly Asp Asp Ser Ser Ser Glu His Leu Leu Gln Asp 115 120 125

Trp Ile Pro Pro Xaa Cys Arg Ser Trp Gly Leu Arg Ala Leu Glu Gln 135 Pro Met Leu Glu Ser Cys Leu Pro Pro Ser Ala Thr Val Pro Tyr Pro 145 150 155 Gly Thr Val Glu Trp Pro His Gly Gly Asp Gly Arg Pro Ala Glu 165 170 <210> 1384 <211> 57 <212> PRT <213> Homo sapiens <400> 1384 Ser Gln Ser Pro Cys Lys Gln Asp Lys Ser Lys Gly Gly Leu Ala Cys 5 10 Pro Ser Leu Phe His Thr Phe Leu Pro Gly Thr Glu Ser His Gly Glu 25 Phe Lys Thr Pro Ser His Ile Leu Leu Leu Lys Leu Val Gln Cys Thr 40 Thr Ser Ser Glu Glu Tyr Arg Met Ala 50 <210> 1385 <211> 56 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (55) <223> Xaa equals any of the naturally occurring L-amino acids Val Pro Gly Ser Gln Pro Leu Glu Thr Gly Ala Leu Arg Glu Asp Ser 5 Leu Pro Pro Arg Ile Leu Leu His Pro Trp Phe Glu Ser Val Leu Glu 20

Pro Gly Tyr Ile Asp Ser Glu Ile Gly Thr Ser Asp Gln Ile Val Pro

<220>

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Glu Tyr Gln Glu Asp Ser Xaa His
    50
<210> 1386
<211> 105
<212> PRT
<213> Homo sapiens
<220>
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<222> (40)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1386
His Glu Leu Ala Ser Ser Glu Phe Ser His Glu Ala Val Lys Thr His
                           10
Ile Asp Thr Val Ile Asm Ala Leu Lys Thr Glu Arg Asp Val Ser Val
            20
                                25
Arg Gln Arg Ala Ala Asp Leu Xaa Tyr Ala Met Cys Asp Arg Ser Asn
Ala Lys Gln Ile Val Ser Glu Met Leu Arq Tyr Leu Glu Thr Ala Asp
                       55
Tyr Ala Ile Arg Glu Glu Ile Val Leu Lys Val Ala Ile Leu Ala Glu
 65
                    70
                                        75
Lys Tyr Ala Val Asp Tyr Ser Trp Tyr Val Asp Thr Ile Leu Asn Leu
                 85
                                     90
Ile Arg Ile Ala Gly Arg Leu Arg Glu
            100
<210> 1387
<211> 67
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring L-amino acids
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<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1387
Xaa His Arg Gly Asn Gly Xaa Leu Xaa Val Pro Ser Glu Phe Pro Gly
                                    10
Arg Pro Thr Arg Pro Gly Lys Leu Asp Ile Val Met His Lys Met Gln
             20
                                25
                                                    30
Glu Lys Val Gln Ser Ile Asn Tyr Asn Pro Phe Asp Gln Lys Leu Tyr
         35
                            40
Val Tyr Asn Asp Gly Tyr Leu Leu Asn Tyr Asp Leu Ser Val Leu Gln
                        55
                                            60
Lys Pro Gln
 65
<210> 1388
<211> 345
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (297)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1388
Val Trp Met Thr Ser Thr Ser Ser Pro Val Pro Arg Ala His Cys Ser
                 5
                                    10
Asn Leu Thr Cys Asn Asn Ser Lys Asn Lys Thr Leu Val Thr Gln Asn
            20
Ser Gly Val Glu Ala Leu Ile His Ala Ile Leu Arg Ala Gly Asp Lys
                            40
Asp Asp Ile Thr Glu Pro Ala Val Cys Ala Leu Arg His Leu Thr Ser
```

Arg His Pro Glu Ala Glu Met Ala Gln Asn Ser Val Arg Leu Asn Tyr

WO 00/55174 PCT/US00/05988 1200

65					70					75					80
Gly	Ile	Pro	Ala	Ile 85	Val	Lys	Leu	Leu	Asn 90	Gln	Pro	Asn	Gln	Trp 95	Pro
Leu	Val	Lys	Ala 100	Thr	Ile	Gly	Leu	11e 105	Arg	Asn	Leu	Ala	Leu 110	Cys	Pro
Ala	Asn	His 115	Ala	Pro	Leu	Gln	Glu 120	Ala	Ala	Val	Ile	Pro 125	Arg	Leu	Val
Gln	Leu 130	Leu	Val	Lys	Ala	His 135	Gln	Asp	Ala	Gln	Arg 140	His	Val	Ala	Ala
Gly 145	Thr	Gln	Gln	Pro	Tyr 150	Thr	Asp	Gly	Val	Arg 155	Met	Glu	Glu	Ile	Val 160
Glu	Gly	Cys	Thr	Gly 165	Ala	Leu	His	Ile	Leu 170	Ala	Arg	Asp	Pro	Met 175	Asn
Arg	Met	Glu	Ile 180	Phe	Arg	Leu	Asn	Thr 185	Ile	Pro	Leu	Phe	Val 190	Gln	Leu
Leu	Tyr	Ser 195	Ser	Val	Glu	Asn	11e 200	Gln	Arg	Val	Ala	Ala 205	Gly	Val	Leu
Суз	Glu 210	Leu	Ala	Gln	Asp	Lys 215	Glu	Ala	Ala	Asp	Ala 220	Ile	Asp	Ala	Glu
Gly 225	Ala	Ser	Ala	Pro	Leu 230	Met	Glu	Leu	Leu	His 235	Ser	Arg	Asn	Glu	Gly 240
Thr	Ala	Thr	Tyr	Ala 245	Ala	Ala	Val	Leu	Phe 250	Arg	Ile	Ser	Glu	Asp 255	Lys
Asn	Pro	Asp	Tyr 260	Arg	Lys	Arg	Val	Ser 265	Val	Glu	Leu	Thr	Asn 270	Ser	Leu
Phe	Lys	His 275	Asp	Pro	Ala	Ala	Trp 280	Glu	Ala	Ala	Gln	Ser 285	Met	Ile	Pro
Ile	Asn 290	Glu	Pro	Tyr	Gly	Asp 295	Asp	Xaa	Asp	Ala	Thr 300	Tyr	Arg	Pro	Met
Tyr 305	Ser	Ser	Asp	Val	Pro 310	Leu	Asp	Pro	Leu	Glu 315	Met	His	Met	Asp	Met 320
Asp	Gly	Asp	Tyr	Pro 325	Ile	Asp	Thr	Tyr	Ser 330	Asp	Gly	Leu	Arg	Pro 335	Pro
Tyr	Pro	Thr	Ala	Asp	His	Met	Leu	Ala							

340 345

<210> 1389

<211> 64 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1389

Ser Leu Ile Cys Tyr Val Gln Ser Leu Lys Ala Thr Thr His Phe Phe 1 5 10 15

Xaa Lys Val Asp Ala Phe Ser Ala Val Leu Glu Ser Val Phe Cys Phe 20 25 30

Trp Gln Glu Ser Cys Lys Leu Cys Ile Leu Lys Gln Met Gln Lys Val \$35\$ 40 45

Val Leu Cys Lys Thr Phe Val Phe Cys Leu Ser Gln Ile Asn Ile Leu $50 \hspace{1cm} 55 \hspace{1cm} 60$

<210> 1390

<211> 371

<212> PRT

<213> Homo sapiens

<400> 1390

Pro Pro Arg Ala Leu Gly Ser Val Ala Met Glu Asn Gln Val Leu Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Pro His Val Tyr Trp Ala Gln Arg His Arg Glu Leu Tyr Leu Arg Val \$20\$ \$25\$ \$30

Glu Leu Ser Asp Val Gln Asn Pro Ala Ile Ser Ile Thr Glu Asn Val \$35\$

Leu His Phe Lys Ala Gln Gly His Gly Ala Lys Gly Asp Asn Val Tyr 50 55 60

Glu Phe His Leu Glu Phe Leu Asp Leu Val Lys Pro Glu Pro Val Tyr

65					70					75					80
Lys	Leu	Thr	Gln	Arg 85	Gln	Val	Asn	Ile	Thr 90	Val	Gln	Lys	Lys	Val 95	Ser
Gln	Trp	Trp	Glu 100	Arg	Leu	Thr	Lys	Gln 105	Glu	Lys	Arg	Pro	Leu 110	Phe	Leu
Ala	Pro	Asp 115	Phe	Asp	Arg	Trp	Leu 120	Asp	Glu	Ser	Asp	Ala 125	Glu	Met	Glu
Leu	Arg 130	Ala	Lys	Glu	Glu	Glu 135	Arg	Leu	Asn	Lys	Leu 140	Arg	Leu	Glu	Ser
Glu 145	Gly	Ser	Pro	Glu	Thr 150	Leu	Thr	Asn	Leu	Arg 155	Lys	Gly	Tyr	Leu	Phe 160
Met	Tyr	Asn	Leu	Va1 165	G1n	Phe	Leu	Gly	Phe 170	Ser	Trp	Ile	Phe	Val 175	Asn
Leu	Thr	Val	Arg 180	Phe	Cys	Ile	Leu	Gly 185	Lys	Glu	Ser	Phe	Tyr 190	Asp	Thr
Phe	His	Thr 195	Val	Ala	Asp	Met	Met 200	Tyr	Phe	Cys	Gln	Met 205	Leu	Ala	Val
Val	Glu 210	Thr	Ile	Asn	Ala	Ala 215	Ile	Gly	Val	Thr	Thr 220	Ser	Pro	Val	Leu
Pro 225	Ser	Leu	lle	Gln	Leu 230	Leu	Gly	Arg	Asn	Phe 235	Ile	Leu	Phe	Ile	11e 240
Phe	Gly	Thr	Met	Glu 245	Glu	Met	Gln	Asn	Lys 250	Ala	Val	Val	Phe	Phe 255	Val
Phe	Tyr	Leu	Trp 260	Ser	Ala	Ile	G1u	Ile 265	Phe	Arg	Tyr	Ser	Phe 270	Tyr	Met
Leu	Thr	Cys 275	Ile	Asp	Met	Asp	Trp 280	Lys	Val	Leu	Thr	Trp 285	Leu	Arg	Tyr
Thr	Leu 290	Trp	Ile	Pro	Leu	Tyr 295	Pro	Leu	Gly	Cys	Leu 300	Ala	Glu	Ala	Val
Ser 305	Val	Ile	Gln	Ser	Ile 310	Pro	Ile	Phe	Asn	Glu 315	Thr	Gly	Arg	Phe	Ser 320
Phe	Thr	Leu	Pro	Tyr 325	Pro	Val	Lys	Ile	Lys 330	Val	Arg	Phe	Ser	Phe 335	Phe
Leu	G1n	Ile	Tyr	Leu	Ile	Met	Ile	Phe	Leu	Gly	Leu	Tyr	Ile	Asn	Phe

340 345 350

Arg His Leu Tyr Lys Gln Arg Arg Arg Tyr Gly Gln Lys Lys Lys 355 360 365

Lys Ile His 370

<210> 1391

<210> 139

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1391

Ala Glu Val Asn Thr Val Lys Tyr Leu Lys Pro Ser Thr Ser Gln Ile

Met Lys Lys Leu Leu Lys Phe Ser Ser Gln Xaa Lys Lys Lys Lys 20 25 30

Ile Lys Arg Glu Ile Lys Ile Leu Glu Asn Leu Arg Gly Gly Pro Asn 35 \$40\$

Ile Ile Thr Leu Ala Asp Ile Val Lys Asp Pro Val Ser Arg Thr Pro $50 \hspace{1cm} 55$

Ala Leu Val Phe Glu His Val Asn Asn Thr Asp Phe Lys Gln Leu Tyr 65 70 75 80

Gln Thr Leu Thr Asp Tyr Asp Ile Arg Phe Tyr Met Tyr Glu Ile Leu $85 \hspace{1cm} 90 \hspace{1cm} 95$

Lys Ala Leu Asp Tyr Cys His Ser Met Gly Ile Met His Arg Asp Val 100 105 110

Lys Pro His Asn Val Met Ile Asp His Glu His Arg Lys Leu Arg Leu 115 120 125

Ile Asp Trp Gly Leu Ala Glu Phe Tyr His Pro Gly Gln Glu Tyr Asn 130 135 140

Val Arg Val Ala Ser Arg Tyr Phe Lys Gly Pro Glu Leu Leu Val Asp 145 150 155 160 Tyr Gln Met Tyr Asp Tyr Ser Leu Asp Met Trp Ser Leu Gly Cys Met 165 170 175

Leu Ala Ser Met Ile Phe Arg Lys Glu Pro Phe Phe His Gly His Asp \$180\$

Asn Tyr Asp Gln Leu Val Arg Ile Ala Lys Val Leu Gly Thr Glu Asp 195 200 205

Leu Tyr Asp Tyr Ile Asp Lys Tyr Asn Ile Glu Leu Asp Pro Arg Phe 210 215 220

Asn Asp Ile Leu Gly Arg His Ser Arg Lys Arg Trp Glu Arg Phe Val 225 230 235 240

His Ser Glu Asn Gln His Leu Val Ser Pro Glu Ala Leu Asp Phe Leu 245 250 255

Asp Lys Leu Leu Arg Tyr Asp His Gln Ser Arg Leu Thr Ala Arg Glu 260 265 270

Ala Met Glu His Pro Tyr Phe Tyr Thr Val Val Lys Asp Gln Ala Arg 275 280 285

Met Gly Ser Ser Ser Met Pro Gly Gly Ser Thr Pro Val Ser Ser Ala 290 295 300

Asn Met Met Ser Gly Ile Ser Ser Val Pro Thr Pro Ser Pro Leu Gly 305 \$310\$ \$315

Pro Leu Ala Gly Ser Pro Val Ile Ala Ala Ala Asn Pro Leu Gly Met 325 330 335

Pro Val Gln Leu Pro Leu Ala Leu Ser Ser Asn Gly Pro Ile Cys Leu $340 \hspace{1.5cm} 345 \hspace{1.5cm} 350 \hspace{1.5cm}$

Leu Met Pro Glu Gln Arg Trp Gly Ser Pro Pro Ser Pro 355 360 365

<210> 1392 <211> 276

·211> 2/6

<212> PRT

<213> Homo sapiens

<400> 1392

Thr Met Ala Ala Ser Asp Thr Glu Arg Asp Gly Leu Ala Pro Glu Lys

1 10 15

Thr Ser Pro Asp Arg Asp Lys Lys Lys Glu Gln Ser Glu Val Ser Val

20 25 30 Ser Pro Arg Ala Ser Lys His His Tyr Ser Arg Ser Arg Ser Arg Ser 40 Arg Glu Arg Lys Arg Lys Ser Asp Asn Glu Gly Arg Lys His Arg Ser Arg Ser Arg Ser Lys Glu Gly Arg Arg His Glu Ser Lys Asp Lys Ser Ser Lys Lys His Lys Ser Glu Glu His Asn Asp Lys Glu His Ser Ser 85 Asp Lys Gly Arg Glu Arg Leu Asn Ser Ser Glu Asn Gly Glu Asp Arg 105 His Lys Arg Lys Glu Arg Lys Ser Ser Arg Gly Arg Ser His Ser Arg 120 Ser Arg Ser Arg Glu Arg Arg His Arg Ser Arg Ser Arg Glu Arg Lys 130 135 Lys Ser Arg Ser Arg Ser Arg Glu Arg Lys Lys Ser Arg Ser Arg Ser 155 Arg Glu Arg Lys Lys Ser Arg Ser Arg Ser Arg Glu Arg Lys Arg Arg 170 Ile Arg Ser Arg Ser Arg Ser Arg Ser Arg His Arg His Arg Thr Arg 180 185 Ser Arg Ser Arg Thr Arg Ser Arg Ser Arg Asp Arg Lys Lys Arg Ile 195 200 Glu Lys Pro Arg Arg Phe Ser Arg Ser Leu Ser Arg Thr Pro Ser Pro Pro Pro Phe Arg Gly Arg Asn Thr Ala Met Asp Ala Gln Glu Ala Leu 225 230 235 Ala Arg Arg Glu Arg Pro Gly Val Ser Leu Ile Val Cys Pro Gly Trp 245

Val Thr Gln Cys Asn Leu Met Leu Leu Pro Leu Gly Thr Gln Pro Asp 260 265 270

Arg Lys Leu Gln 275

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<210> 1393
<211> 180
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (139)
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<220>
<221> SITE
<222> (172)
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<221> SITE
<222> (180)
<223> Xaa equals any of the naturally occurring L-amino acids
Ala Arg Arg Xaa Val Val Ile Thr Ser Lys Ser Gly Glu Ile Leu Tyr
                                     10
Arg Ile Ser Pro Trp Ala Lys Tyr Val Val Arg Glu Gly Asp Asn Val
            20
Asn Tyr Asp Trp Ile His Trp Asp Pro Glu His Ser Tyr Glu Phe Lys
                            40
His Ser Arg Pro Lys Lys Pro Arg Ser Leu Arg Ile Tyr Glu Ser His
    50
                        55
Val Gly Ile Ser Ser His Glu Gly Lys Val Ala Ser Tyr Lys His Phe
Thr Cys Asn Val Leu Pro Arg Ile Lys Gly Leu Gly Tyr Asn Cys Ile
                                    90
Gln Leu Met Ala Ile Met Glu His Ala Tyr Tyr Ala Ser Phe Gly Tyr
           100
                                105
                                                    110
Gln Ile Thr Ser Phe Phe Ala Ala Ser Ser Arg Tyr Gly Thr Pro Glu
       115
                           120
```

Glu Leu Gln Glu Leu Val Asp Thr Ala His Xaa Met Gly Ile Ile Val 135 Leu Leu Asp Val Val Gln Ala His Ala Ser Lys Asn Ser Ser Arg Trp 150 155 Asp Trp Asn Met Val Trp Met Gly Asp Arg Phe Xaa Val Asn Phe Pro 165 170 Phe Leu Gly Xaa 180 <210> 1394 <211> 162 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (64) <223> Xaa equals any of the naturally occurring L-amino acids Ile Leu Thr Tyr Lys Glu Thr Gly Pro Gln Thr Gly Asn Ser Leu Val 10 Gln Ala Ser Ala Arg Arg Lys Asp Thr Met Thr Ala Pro Cys Trp Ala 25 Gln Pro Gly Ser Leu Ala Lys Cys Leu Leu Glu Ala Val Pro Ala Arg 40 Gly Leu Gln Gln Gly Asp Ser Leu Pro Ser Gly His Tyr Gln Tyr Xaa 50 Leu Tyr Leu Glu Val Gly Lys Arg Ser Pro Leu Arg Gln Gln Asp Asn Gly Gln Phe Arg Glu Gly Glu Gly Ser Lys Arg Phe Arg Gly His Arg Ser Gln Arg Thr Pro Pro Arg Pro Thr Ala Gly Ser Ala Trp Lys Ile 100 105 His Leu Leu Gly Thr Phe Trp Gln Pro Asp Gly Ser Asn Ser Pro Leu 115 120 Gly Leu Ile Pro Ser Ser Lys Ser Trp Leu Gln Met Ser Leu Ser Ser

135

Pro Tyr Trp Arg Ala Pro Pro Asp Ser Trp Ala Gln Phe Ile Ser Ser 145 150 155 Pro Phe <210> 1395 <211> 416 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (412) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (413) <223> Xaa equals any of the naturally occurring L-amino acids Gln Leu Asp Gly Val Gly Leu Glu Ser Arg Ser Pro Gly Cys Ser Thr 10 Trp Glu Lys Ala Asp Arg Val Arg Gly Pro Val Ala Gln Arg Ala Val Ala Ser Gly Ser Gly Lys Trp Arg Gln Glu Pro Ser Leu His Phe Ala 40 Met Ser Phe Leu Ile Asp Ser Ser Ile Met Ile Thr Ser Gln Ile Leu 50 Phe Phe Gly Phe Gly Trp Leu Phe Phe Met Arg Gln Leu Phe Lys Asp Tyr Glu Ile Arg Gln Tyr Val Val Gln Val Ile Phe Ser Val Thr Phe Ala Phe Ser Cys Thr Met Phe Glu Leu Ile Ile Phe Glu Ile Leu Gly 100 110 Val Leu Asn Ser Ser Ser Arg Tyr Phe His Trp Lys Met Asn Leu Cys

120 Val Ile Leu Leu Ile Leu Val Phe Met Val Pro Phe Tyr Ile Gly Tyr

140

135

115

Phe 145	Ile	Val	Ser	Asn	11e 150	Arg	Leu	Leu	His	Lys 155	Gln	Arg	Leu	Leu	Phe 160
ser	Cys	Leu	Leu	Trp 165	Leu	Thr	Phe	Met	Tyr 170	Phe	Phe	Trp	Lys	Leu 175	Gly
Asp	Pro	Phe	Pro 180	Ile	Leu	Ser	Pro	Lys 185	His	Gly	Ile	Leu	Ser 190	Ile	Glu
Gln	Leu	Ile 195	ser	Arg	Val	Gly	Val 200	Ile	Gly	Val	Thr	Leu 205	Met	Ala	Leu
Leu	Ser 210	Gly	Phe	Gly	Ala	Val 215	Asn	Cys	Pro	Tyr	Thr 220	Tyr	Met	Ser	Tyr
Phe 225	Leu	Arg	Asn	Val	Thr 230	Asp	Thr	Asp	Ile	Leu 235	Ala	Leu	Glu	Arg	Arg 240
Leu	Leu	Gln	Thr	Met 245	Asp	Met	Ile	Ile	Ser 250	Lys	Lys	Lys	Arg	Met 255	Ala
Met	Ala	Arg	Arg 260	Thr	Met	Phe	Gln	Lys 265	Gly	Glu	Val	His	Asn 270	Lys	Pro
ser	Gly	Phe 275	Trp	Gly	Met	Ile	Lys 280	Ser	va1	Thr	Thr	ser 285	Ala	Ser	Gly
Ser	Glu 290	Asn	Leu	Thr	Leu	Ile 295	Gln	Gln	Glu	Val	Asp 300	Ala	Leu	Glu	Glu
Leu 305	Ser	Arg	Gln	Leu	Phe 310	Leu	Glu	Thr	Ala	Asp 315	Leu	Tyr	Ala	Thr	Lys 320
Glu	Arg	Ile	Glu	Tyr 325	Ser	Lys	Thr	Phe	Lys 330	Gly	Lys	Tyr	Phe	Asn 335	Phe
Leu	Gly	Tyr	Phe 340	Phe	Ser	Ile	Tyr	Cys 345	Val	Trp	Lys	Ile	Phe 350	Met	Ala
Thr	Ile	Asn 355	Ile	Val	Phe	Asp	Arg 360	Val	Gly	Lys	Thr	Asp 365	Pro	Val	Thr
Arg	Gly 370	Ile	Glu	Ile	Thr	Val 375	Asn	Tyr	Leu	Gly	Ile 380	Gln	Phe	Asp	Val
Lys 385	Phe	Trp	Ser	Gln	His 390	Ile	Ser	Phe	Ile	Leu 395	Val	Gly	Ile	Ile	Ile 400
Val	Thr	Ser	Ile	Arg 405	Gly	Leu	Leu	Ile	Thr	Leu	Xaa	Xaa	Val	Ile 415	Leu

WO 00/55174 PCT/US00/05988 1210

<210> 1396

<211> 71

<212> PRT

<213> Homo sapiens

<400> 1396

Ile Ile Tyr Val His Ile Val Gln Gln Lys Tyr Asn Val Asn His Asn

Ile Ile Phe Asn Phe Leu Val Ala Ile Leu Lys Lys Lys Gln Ala Lys 20

Leu Ile Leu Ile Thr Val Tyr Val Thr Gln Tyr Ile Lys Asn Ile Ile 35 40

Ser Thr Cys Asn Gln Tyr Lys Arg Leu Leu Met Lys His Leu Ile Phe

Phe Phe Phe His Thr Lys Ser 65 70

<210> 1397

<211> 204

<212> PRT

<213> Homo sapiens

<400> 1397

Ala Pro Arg Leu Val Val Thr Cys Arg His Val Ser Pro Arg Glu Ala

Ala Arg Val Leu Val Arg Ser Thr Thr Pro Lys Ser Val Ala Ile Trp 20 25 30

Gly Arg Val Val Phe Ala Thr Gln Glu Thr Cys Pro Tyr Asp Ile Ala

Val Val Ser Leu Glu Glu Asp Leu Asp Asp Val Pro Ile Pro Val Pro

Ala Glu His Phe His Glu Gly Glu Ala Val Ser Val Val Gly Phe Gly 70

Val Phe Gly Gln Ser Cys Gly Pro Ser Val Thr Ser Gly Ile Leu Ser

85 90 95

Ala Val Val Gln Val Asn Gly Thr Pro Val Met Leu Gln Thr Thr Cys 100 105 110

Ala Val His Ser Gly Ser Ser Gly Gly Pro Leu Phe Ser Asn His Ser 115 120 125

Gly Asn Leu Leu Gly Ile Ile Thr Ser Asn Thr Arg Asp Asn Asn Thr 130 135 140

Gly Ala Thr Tyr Pro His Leu Asn Phe Ser Ile Pro Ile Thr Val Leu 145 150 155 160

Gln Pro Ala Leu Gln Gln Tyr Ser Gln Thr Gln Asp Leu Gly Gly Leu 165 170 175

Arg Glu Leu Asp Arg Ala Ala Glu Pro Val Arg Val Val Trp Arg Leu 180 $$185\mbox{ }$

Gln Arg Pro Leu Ala Glu Ala Pro Arg Ser Lys Leu 195 200

<210> 1398

<211> 69

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1398

Val Phe Ile Val Phe Asn Ser Val Thr Ser Arg Phe Phe Pro Lys Lys $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Phe Leu Xaa Ile Lys Ser Arg Leu Phe Arg Lys Tyr Leu Pro Val Leu 20 25 30

His Phe Asn Phe Thr Asn Gln Thr Thr Ala Ile Gln Pro Ile Lys Gln 35 40 45

Gln Lys Gln Ser Lys Glu Arg Asp Leu Asp Ile Gly Ile Lys Glu Ser 50 55 60

Phe His Phe Ile Ile

<210> 1399

<211> 238 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1399

Glu Ala Glu Ala Ala Glu Arg Gly Pro Leu His Ala Gly Lys Gln Pro 1 5 10 15

Arg Xaa Pro Gly Gly Gly Ala Arg Trp Pro Cys Cys Ser Ala Phe Lys 20 25 30

Glu Gln Gln Phe Val Ile Ala Gly Val Leu Val Glu Asp Ser Asn Asn 35 40 45

His His Leu Met Leu Glu Ala Ser Xaa Trp Ala Thr Ile Glu Gly Leu 50 60

Val Glu Leu Leu Gln Pro Phe Lys Gln Val Ala Glu Met Leu Ser Ala 65 70 75 80

Ser Arg Tyr Pro Thr Ile Ser Met Val Lys Pro Leu Leu His Met Leu 85 90 95

Leu Asn Thr Thr Leu Asn Ile Lys Glu Thr Asp Ser Lys Glu Leu Ser 100 105 110

Met Ala Lys Glu Val Ile Ala Lys Glu Leu Ser Lys Thr Tyr Gln Glu 115 120 125

Thr Pro Glu Ile Asp Met Phe Leu Asn Val Ala Thr Phe Leu Asp Pro 130 135 140

Arg Tyr Lys Arg Leu Pro Phe Leu Ser Ala Phe Glu Arg Gln Gln Val 145 150 155 160

Glu Asn Arg Val Val Glu Glu Ala Lys Gly Cys Trp Thr Arg Ser Lys 165 170 175

Thr Ala Ala Thr Gly Arg Leu Arg Thr Arg Ser Ser Arg Cys Pro Arg 180 185 190

Ser Leu Pro Ser Arg Ser Ser Cys Gly His Pro Arg Arg Pro Pro 195 200 205

Ala Ser Ser Thr Thr Cys Trp Pro Arg Ser Ser Ala Arg Gln Ala Ala 210 $$\rm 220$$

Trp Arg Thr Arg Lys Ser Gly Met Pro Arg Trp Trp Arg Ser 225 230 235

<210> 1400

<211> 83

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1400

Phe Leu Lys Leu Cys Gly Leu Lys Trp Gln Val Ala Ser Thr Asp Phe

Thr Arg Phe Lys Leu Ile Phe Lys Ser Asn His Trp Arg Asn Arg Tyr \$20\$

Thr Phe Val Cys Arg Ile Phe Thr Ser Tyr Asn Ser Thr Arg Lys Val \$35\$ 40 45

Phe Ser Phe Pro Ala Asp Ala Gly Thr Pro Thr Gly Thr Leu Gln Lys 50 55 60

Asp Ala Ser Pro Asp Cys Thr Asp Gly Arg Trp Lys His Gly Pro Val $_{65}$ $$ 70 $$ 75 $$ 80

Cys Gly Xaa

<210> 1401 <211> 79

<212> PRT

<213> Homo sapiens

<400> 1401

Gly Ala Leu Cys Ala Val Trp Ala Arg Ala Gly Arg Pro Gly Pro Gln $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Asp Val Arg Cys Pro Leu Arg Arg Ala Gly Ala Cys Gly Glu Thr Arg \$20\$ \$25\$

Ala Thr Cys Glu Arg Gly Pro Glu Thr Phe Cys Thr Arg Glu Leu Arg 35 40 45

Gly Leu Ser Asn Pro Ala Ser Val Gly Asn Val Ser Glu Thr Gln Gly 50 60

Glu Trp Pro Gln Pro Phe Val Thr Cys Ser Pro Ala Cys Pro Lys 65 70 75

<210> 1402

<211> 222

<212> PRT

<213> Homo sapiens

<400> 1402

Pro Ala Asn Gly Leu Leu Phe Gly Gly Leu Arg Ser Arg Glu Leu Arg 1 5 10 15

Val Phe Ala Arg Leu Ser Thr Phe Arg Lys Ile Arg Ala Gly Val Trp 20 25 30

Glu Val Pro His Ser Thr Gly Gln Arg Pro Leu Asp Ser Arg Gly Asn \$35\$ \$40\$ \$45\$

Leu Gln Leu Trp Val Arg Gly His Leu Ala Leu Val Phe Ala Leu Tyr $50 \\ \hspace{1.5cm} 55 \\ \hspace{1.5cm} 60$

Arg Ser Cys Gly Pro Arg Gly Ala Ser Gly Glu Asp Val Ser Gly Arg 65 70 75 80

Gly Phe Pro Ala Phe Cys Leu Gly Gln Trp Gly Cys Ser Cys Leu Ser 85 90 95

Phe Ser Pro Thr Pro Trp Thr Val Leu Gly Cys Trp Cys Thr Trp Leu 100 105 110

Ala His Gly Gly Gln Arg Ala Glu Asn Ala Thr Ala Trp Leu Leu Val 115 120 125

Pro Pro Gly Ser Leu Ala His Ser Arg Ser Gly Arg Asp Gly Arg Val

150 145 155 160 Ser Ser Leu Ser Ser Gly Ile Arg Lys Gly Met Val Ser Thr Pro His 165 170 Cys Gly Gly Phe Arg Gln Gly Ser Tyr Cys Leu Leu Cys Leu Gly Phe 185 Pro Ile Trp Lys Met Gly Ala Gly Val Leu Thr Tyr Leu Arg Trp Asn 200 Gly Glu Gln Gly Thr Cys Arg Ser Pro Ser Glu Asn Val Met 210 215 <210> 1403 <211> 139 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (126) <223> Xaa equals any of the naturally occurring L-amino acids Arg Ala Thr Leu Glu His Pro Ala Leu Val Pro Leu Gln Pro Ala Glu 10 Met Val Glu Leu Met Phe Pro Leu Leu Leu Leu Leu Pro Phe Leu 25 Leu Tyr Met Ala Ala Pro Gln Ile Arg Lys Met Leu Ser Ser Gly Val Cys Thr Ser Thr Val Gln Leu Pro Gly Lys Val Val Val Thr Gly 50 Ala Asn Thr Gly Ile Gly Lys Glu Thr Ala Lys Glu Leu Ala Gln Arg 65 70 Gly Ala Arg Val Tyr Leu Ala Cys Arg Asp Val Glu Lys Gly Glu Leu Val Ala Lys Glu Ile Gln Thr Thr Gly Asn Gln Gln Val Leu Val 100 105 110 Arg Lys Leu Asp Leu Ser Asp Thr Lys Ser Ile Arg Ala Xaa Ala Lys

120

Gly Phe Leu Ala Glu Glu Lys His Leu His Val

<210> 1404

<211> 285

<212> PRT

<213> Homo sapiens

<400> 1404

Glu Glu Gln His Ser Met Leu Gly Ser Gly Phe Lys Ala Glu Arg Leu
1 5 10 15

Arg Val Asn Leu Arg Leu Val Ile Asn Arg Leu Lys Leu Leu Glu Lys
20 25 30

Lys Lys Thr Glu Leu Ala Gln Lys Ala Arg Lys Glu Ile Ala Asp Tyr \$35\$

Ile Arg Glu Asp Tyr Leu Val Glu Ala Met Glu Ile Leu Glu Leu Tyr 65 70 75 80

Cys Asp Leu Leu Leu Ala Arg Phe Gly Leu Ile Gln Ser Met Lys Glu $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Leu Asp Ser Gly Leu Ala Glu Ser Val Ser Thr Leu Ile Trp Ala Ala 100 \$105\$

Pro Arg Leu Gln Ser Glu Val Ala Glu Leu Lys Ile Val Ala Asp Gln 115 120 125

Leu Cys Ala Lys Tyr Ser Lys Glu Tyr Gly Lys Leu Cys Arg Thr Asn 130 135 140

Gln Ile Gly Thr Val Asn Asp Arg Leu Met His Lys Leu Ser Val Glu 145 \$150\$ 150 155

Ala Pro Pro Lys Ile Leu Val Glu Arg Tyr Leu Ile Glu Ile Ala Lys
165 170 175

Asn Tyr Asn Val Pro Tyr Glu Pro Asp Ser Val Val Met Ala Glu Ala 180 \$185\$

Pro Pro Gly Val Glu Thr Asp Leu Ile Asp Val Gly Phe Thr Asp Asp 195 200 205

Val Lys Lys Gly Gly Pro Gly Arg Gly Gly Ser Gly Gly Phe Thr Ala

220

Pro Val Gly Gly Pro Asp Gly Thr Val Pro Asp Ala His Ala His Ala 225 230 235 Tyr Ala Ile Cys Lys Tyr Ala Phe Leu Ile Ser Thr Ala Lys Gly Thr 250 Ile Arg Phe Gln Trp Thr Ala Asn Gly Asp Leu Ser Gly Leu Ser Gln 265 Tyr Ser Ser Thr Ser Asp Thr Ser Asn Ser Pro Ile Val 275 280 <210> 1405 <211> 196 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (113) <223> Xaa equals any of the naturally occurring L-amino acids Arg Val Thr Phe Asn Asn Leu Ser Ile Ser Gly Glu Leu Glu Ala Val Gln Asn Met Val Ser Thr Val Glu Cys Ala Leu Lys His Val Ser Asp 25 Trp Leu Asp Glu Thr Asn Lys Gly Thr Lys Thr Glu Gly Glu Thr Glu

215

210

Val Lys Lys Asp Glu Ala Gly Glu Asn Tyr Ser Lys Asp Gln Gly Gly
50
55
60

Arg Thr Leu Cys Gly Val Met Arg Ile Gly Leu Val Ala Lys Gly Leu
65
70
70
80

40

65 70 75 80

Leu Ile Lys Asp Asp Met Asp Leu Glu Leu Val Leu Met Cys Lys Asp

90

Lys Pro Thr Glu Thr Leu Leu Asn Thr Val Lys Asp Asn Leu Pro Ile

Xaa Ile Gln Lys Leu Thr Glu Glu Lys Tyr Gln Val Glu Gln Cys Val 115 120 125 Asn Glu Ala Ser Ile Ile Ile Arg Asn Thr Lys Glu Pro Thr Leu Thr 130 135 140

Leu Lys Val Ile Leu Thr Ser Pro Leu Ile Arg Asp Glu Leu Glu Lys 145 150 155 160

Lys Asp Gly Glu Asn Val Ser Met Lys Asp Pro Pro Asp Leu Leu Asp 165 170 175

Arg Gln Lys Cys Leu Asn Ala Leu Ala Ser Leu Arg His Ala Lys Trp 180 185 190

Phe Gln Ala Arg

<210> 1406

<211> 329

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (312)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1406

Pro Pro Arg Pro Leu Ser Ala Arg Lys Leu Trp Pro Pro Leu Pro Pro 1 5 10 15

Pro Pro Thr Arg Thr Pro Ala Glu Pro Pro Arg Pro Arg Gly Arg Asn \$20\$

Pro Ala Ser Asn Asn Ser Asn Ser Leu Asn Val Asn Asn Gly Val Pro $35 \ 40 \ 45$

Gly Gly Ala Ala Ala Ala Ser Ser Ala Thr Val Ala Ala Ala Ser Ala 50 60

Thr Thr Ala Ala Ser Ser Ser Leu Ala Thr Pro Glu Leu Gly Ser Ser 65 70 75 80

Leu Lys Lys Lys Lys Arg Leu Ser Gln Ser Asp Glu Asp Val Ile Arg 85 90 95

Leu Ile Gly Gln His Leu Asn Gly Leu Gly Leu Asn Gln Thr Val Asp 100 105 110

Leu Leu Met Gln Glu Ser Gly Cys Arg Leu Glu His Pro Ser Ala Thr 115 120 125

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Lys Phe Arg Asn His Val Met Glu Gly Asp Trp Asp Lys Ala Glu Asn 135

Asp Leu Asn Glu Leu Lys Pro Leu Val His Ser Pro His Ala Ile Val 145 150 155

Val Arq Gly Ala Leu Glu Ile Ser Gln Thr Leu Leu Gly Ile Ile Val 170

Arg Met Lys Phe Leu Leu Gln Gln Lys Tyr Leu Glu Tyr Leu Glu

Asp Gly Lys Val Leu Glu Ala Leu Gln Val Leu Arg Cys Glu Leu Thr 195 200 205

Pro Leu Lys Tyr Asn Thr Glu Arg Ile His Val Leu Ser Gly Tyr Leu 215

Met Cys Ser His Ala Glu Asp Leu Arg Ala Lvs Ala Glu Trp Glu Glv 230 235

Lys Gly Thr Ala Ser Arg Ser Lys Leu Leu Asp Lys Leu Gln Thr Tyr 245 250 255

Leu Pro Pro Ser Val Met Leu Pro Pro Arg Arg Leu Gln Thr Leu Leu 260 265 270

Arg Gln Ala Val Glu Leu Gln Arg Asp Arg Cys Leu Tyr His Asn Thr 280

Lvs Leu Asp Asn Asn Leu Asp Ser Val Ser Leu Leu Ile Asp His Val 295

Cys Ser Lys Arg Gln Phe Pro Xaa Leu Tyr Ala Ala Asp Thr Tyr Gly 305 310 315

Ser Ile Val Met Asn Phe Gly Ser Cys 325

<210> 1407

<211> 713

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

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<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (134)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (280)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (282)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (322)
<223> Xaa equals any of the naturally occurring L-amino acids
Ser Pro Gly Pro Gln Pro His Ser Xaa Xaa Arg Ser Pro Pro Pro Pro
                                     10
                                                          15
Pro Leu Arg Pro Pro Pro Met Lys Arg Leu Pro Leu Leu Val Val Phe
             20
                                 25
Ser Thr Leu Leu Asn Cys Ser Tyr Thr Gln Asn Cys Thr Lys Thr Pro
                             40
Cys Leu Pro Asn Ala Lys Cys Glu Ile Arg Asn Gly Ile Glu Ala Cys
     50
                         55
                                             60
Tyr Cys Asn Met Gly Phe Ser Gly Asn Gly Val Thr Ile Cys Glu Asp
 65
Asp Asn Glu Cys Gly Asn Leu Thr Gln Ser Cys Gly Glu Asn Ala Asn
                                     90
Cys Thr Asn Thr Glu Glv Ser Tyr Tyr Cys Met Cys Val Pro Glv Phe
            100
                                105
                                                     110
Arg Ser Ser Ser Asn Gln Asp Arg Phe Ile Thr Asn Asp Gly Thr Val
       115
                            120
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Cys	Ile 130		Asn	Val	Xaa	Ala 135		Cys	His	Leu	Asp 140	Asn	Val	Cys	Ile
Ala 145	Ala	Asn	Ile	Asn	Lys 150		Leu	Thr	Lys	Ile 155	Arg	Ser	Ile	Lys	Glu 160
Pro	Val	Ala	Leu	Leu 165	Gln	Glu	Val	Tyr	Arg 170	Asn	Ser	Val	Thr	Asp 175	Leu
Ser	Pro	Thr	Asp 180	Ile	Ile	Thr	Tyr	Ile 185	Glu	Ile	Leu	Ala	Glu 190	Ser	Ser
Ser	Leu	Leu 195	Gly	Tyr	Lys	Asn	Asn 200	Thr	Ile	Ser	Ala	Lys 205	Asp	Thr	Leu
Ser	Asn 210	Ser	Thr	Leu	Thr	Glu 215	Phe	Val	Lys	Thr	Val 220	Asn	Asn	Phe	Val
Gln 225	Arg	Asp	Thr	Phe	Val 230	Val	Trp	Asp	Lys	Leu 235	Ser	Val	Asn	His	Arg 240
Arg	Thr	His	Leu	Thr 245	Lys	Leu	Met	His	Thr 250	Val	Glu	Gln	Ala	Thr 255	Leu
Arg	Ile	Ser	Gln 260	Ser	Phe	Gln	Lys	Thr 265	Thr	Glu	Phe	Asp	Thr 270	Asn	Ser
Thr	Asp	Ile 275	Ala	Leu	Lys	Val	Xaa 280	Phe	Xaa	Asp	Ser	Tyr 285	Asn	Met	Lys
His	Ile 290	His	Pro	His	Met	Asn 295	Met	Asp	Gly	Asp	Tyr 300	Ile	Asn	Ile	Phe
Pro 305	Lys	Arg	Lys	Ala	Ala 310	Tyr	Asp	Ser	Asn	Gly 315	Asn	Val	Ala	Val	Ala 320
Phe	Xaa	Tyr	Tyr	Lys 325	Ser	Ile	Gly	Pro	Leu 330	Leu	Ser	Ser	Ser	Asp 335	Asn
Phe	Leu	Leu	Lys 340	Pro	Gln	Asn	Tyr	Asp 345	Asn	Ser	Glu	Glu	Glu 350	Glu	Arg
Val	Ile	Ser 355	Ser	Val	Ile	Ser	Val 360	Ser	Met	Ser	Ser	Asn 365	Pro	Pro	Thr
Leu	Tyr 370	Glu	Leu	Glu		Ile 375	Thr	Phe	Thr	Leu	ser 380	His	Arg	Lys	Val
Thr 385	Asp	Arg	Tyr	Arg	ser 390	Leu	Cys	Ala	Phe	Trp 395	Asn	Tyr	Ser	Pro	Asp 400

Thr Met Asn Gly Ser Trp Ser Ser Glu Gly Cys Glu Leu Thr Tyr Ser Asn Glu Thr His Thr Ser Cys Arg Cys Asn His Leu Thr His Phe Ala 425 Ile Leu Met Ser Ser Gly Pro Ser Ile Gly Ile Lys Asp Tyr Asn Ile 435 440 Leu Thr Arg Ile Thr Gln Leu Gly Ile Ile Ile Ser Leu Ile Cys Leu 455 Ala Ile Cys Ile Phe Thr Phe Trp Phe Phe Ser Glu Ile Gln Ser Thr 470 475 Arg Thr Thr Ile His Lys Asn Leu Cys Cys Ser Leu Phe Leu Ala Glu 485 490 Leu Val Phe Leu Val Gly Ile Asn Thr Asn Thr Asn Lys Leu Phe Cys 500 505 Ser Ile Ile Ala Gly Leu Leu His Tyr Phe Phe Leu Ala Ala Phe Ala 520 Trp Met Cys Ile Glu Gly Ile His Leu Tyr Leu Ile Val Val Gly Val 535 Ile Tyr Asn Lys Gly Phe Leu His Lys Asn Phe Tyr Ile Phe Gly Tyr 550 Leu Ser Pro Ala Val Val Gly Phe Ser Ala Ala Leu Gly Tyr Arg 565 570 Tyr Tyr Gly Thr Thr Lys Val Cys Trp Leu Ser Thr Glu Asn Asn Phe 585 Ile Trp Ser Phe Ile Gly Pro Ala Cys Leu Ile Ile Leu Val Asn Leu 595 600 Leu Ala Phe Gly Val Ile Ile Tyr Lys Val Phe Arg His Thr Ala Gly 610 615 Leu Lys Pro Glu Val Ser Cys Phe Glu Asn Ile Arg Ser Cys Ala Arg 630 635 Gly Ala Leu Ala Leu Leu Phe Leu Leu Gly Thr Thr Trp Ile Phe Gly 645 Val Leu His Val Val His Ala Ser Val Val Thr Ala Tyr Leu Phe Thr

665

680 Leu Ser Arg Lys Ile Gln Glu Glu Tyr Tyr Arg Leu Phe Lys Asn Val 695 700 Pro Cys Cys Phe Gly Cys Leu Ser Cys 705 710 <210> 1408 <211> 336 <212> PRT <213> Homo sapiens <400> 1408 Gln Arg Gly His Gln Gly Cys Arg Arg Ala Arg Asn Cys Arg Val Gln 10 His Pro Val Cys Ser Arg Gly Arg Asp Ser Gly Leu Tyr His Leu Pro 20 25 His Pro Gln Pro Val Pro Glu Asn Thr Trp Leu Tyr Gln Ala Leu Arg Glu Gly Thr Arg Val Gln Ser Val Glu Gln Ile Arg Glu Val Ala Ser

Val Ser Asn Ala Phe Gln Gly Met Phe Ile Phe Leu Phe Leu Cys Val

Gly Ala Ala Arg Ile Arg Gly Glu Thr Leu Gly Leu Ile Gly Phe Gly 65 70 75 Arg Thr Gly Gln Ala Val Ala Val Arg Ala Lys Ala Phe Gly Phe Ser

Val Ile Phe Tyr Asp Pro Tyr Leu Gln Asp Gly Ile Glu Arg Ser Leu 105

Gly Val Gln Arg Val Tyr Thr Leu Gln Asp Leu Leu Tyr Gln Ser Asp 115 120

125

Cys Val Ser Leu His Cys Asn Leu Asn Glu His Asn His His Leu Ile 130 135

Asn Asp Phe Thr Ile Lys Gln Met Arg Gln Gly Ala Phe Leu Val Asn

Ala Ala Arg Glv Glv Leu Val Asp Glu Lvs Ala Leu Ala Gln Ala Leu 165 170

Lys Glu Gly Arg Ile Arg Gly Ala Ala Leu Asp Val His Glu Ser Glu

180 185 190

Pro Phe Ser Phe Ala Gln Gly Pro Leu Lys Asp Ala Pro Asn Leu Ile 195 200 205

Cys Thr Pro His Thr Ala Trp Tyr Ser Glu Gln Ala Ser Leu Glu Met 210 215 220

Arg Glu Ala Ala Ala Thr Glu Ile Arg Arg Ala Ile Thr Gly Arg Ile 225 230 235 240

Pro Glu Ser Leu Arg Asn Cys Val Asn Lys Glu Phe Phe Val Thr Ser 245 250 255

Ala Pro Trp Ser Val Ile Asp Gln Gln Ala Ile His Pro Glu Leu Asn \$260\$ \$265\$ \$270\$

Gly Ala Thr Tyr Arg Tyr Pro Pro Gly Ile Val Gly Val Ala Pro Gly $275 \\ 280 \\ 285$

Gly Leu Pro Ala Ala Met Glu Gly Ile Ile Pro Gly Gly Ile Pro Val $290 \hspace{1.5cm} 295 \hspace{1.5cm} 300 \hspace{1.5cm}$

Thr His Asn Leu Pro Thr Val Ala His Pro Ser Gln Ala Pro Ser Pro 305 \$310\$

Asn Gln Pro Thr Lys His Gly Asp Asn Arg Glu His Pro Asn Glu Gln \$325\$

<210> 1409

<211> 76

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1409

Glu Ala Glu Glu Asp Thr Ser Glu Arg Ser Glu Glu Lys Arg Ser Val

1 10 15 Asn Cys Trp Asp Leu Gly Asp Gln Val Gln Gly Glu Tyr Lys Leu 20 25 Ser Leu Phe Gly Phe Ala Ile Leu Gly Leu Thr Lys Pro Cys Ser Ile Ser Ser Ile Leu Gly Asn Asn Leu Leu Arg Trp Ala Phe Ile Phe Cys Phe Pro Glu Leu Glu Ile Ser Ile Xaa Xaa Lys Leu 70 <210> 1410 <211> 236 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (157) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (167) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (181) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (183) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1410 His Ala Ala Ser Thr Thr Cys Pro Glu Gln Met Asp Cys Ser Pro Thr 10 Asp Ser Ser Ser Ala Ser Pro Gly Ala Ser Thr Thr Ser Thr Pro Gly 20 25

Ala Ser Pro Ala Pro Arg Ser Arg Lys Pro Gly Ala Val Ile Glu Ser

40

Phe Val Asn His Ala Pro Gly Val Phe Ser Gly Thr Phe Ser Gly Thr 50 60

Leu His Pro Asn Cys Gln Asp Ser Ser Gly Arg Pro Arg Arg Asp Ile 65 70 75 80

Gly Thr Ile Leu Gln Ile Leu Asn Asp Leu Leu Ser Ala Thr Arg His $85 \hspace{1cm} 90 \hspace{1cm} 95$

Tyr Gln Gly Met Pro Pro Ser Leu Ala Gln Leu Arg Cys His Ala Gln 100 105 110

Cys Ser Pro Ala Ser Pro Ala Pro Asp Leu Ala Pro Asg Thr Thr Ser $115 \\ 120 \\ 125$

Cys Glu Lys Leu Thr Ala Ala Pro Ser Ala Ser Leu Leu Gln Gly Gln 130 135 140

Ser Gln Ile Arg Met Cys Lys Pro Pro Gly Asp Arg Xaa Ser Ala Asp 145 150150155155

Arg Lys Pro Arg His Ala Xaa Lys Val Glu Arg Leu Gln Leu Leu Leu 165 170 175

His Glu Lys Arg Xaa Ser Xaa Lys Gly Pro Ala Gly Pro Arg Val Ser 180 185 190

Val Pro Leu Val Thr Gln Pro Gln Gly Gly Arg Ser Asp Ser Ser Ser 195 200 205

Ser Gly Gly Gly Gly Thr Gln Ala Gln Ala Ser Gly Leu Gly Leu Asp 210 215 220

Phe Glu Glu Leu Arg Met Glu Ala Arg Ser Gln Pro 225 230 235

<210> 1411 <211> 280

<211> 280 <212> PRT

-212- INI

<213> Homo sapiens

<400> 1411

Asn Trp Gln Cys Cys Val Lys Thr Met Val Tyr His His Met Thr Glu 1 5 10 15

Glu Glu Arg Phe Glu Val Asp Gln Leu Gln Gly Leu Arg Asn Ser Val $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Arg Met Glu Leu Gln Asp Leu Glu Leu Gln Leu Glu Glu Arg Leu Leu

35 40 45

Gly Leu Glu Glu Gln Leu Arg Ala Val Arg Met Pro Ser Pro Phe Arg 50 55 60

Ser Ser Ala Leu Met Gly Met Cys Gly Ser Arg Ser Ala Asp Asn Leu 65 70 75 80

Ser Cys Pro Ser Pro Leu Asn Val Met Glu Pro Val Thr Glu Leu Met 85 90 95

Gln Glu Gln Ser Tyr Leu Lys Ser Glu Leu Gly Leu Gly Leu Gly Glu 100 105 110

Met Gly Phe Glu Ile Pro Pro Gly Glu Ser Ser Glu Ser Val Phe Ser 115 120 125

Gln Ala Thr Ser Glu Ser Ser Ser Val Cys Ser Gly Pro Ser His Ala $130 \ \ 135 \ \ 140$

Asn Arg Arg Thr Gly Val Pro Ser Thr Ala Ser Val Gly Lys Ser Lys 145 \$150\$

Thr Pro Leu Val Ala Arg Lys Lys Val Phe Arg Ala Ser Val Ala Leu 165 170 175

Thr Pro Thr Ala Pro Ser Arg Thr Gly Ser Val Gln Thr Pro Pro Asp 180 185 190

Leu Glu Ser Ser Glu Glu Val Asp Ala Ala Glu Gly Ala Pro Glu Val 195 200 205

Val Gly Pro Lys Ser Glu Val Glu Glu Gly His Gly Lys Leu Pro Ser 210 220

Met Pro Ala Ala Glu Glu Met His Lys Asn Val Glu Gln Asp Glu Leu 225 230 230

Gln Gln Val Ile Arg Glu Ile Lys Glu Ser Ile Val Gly Glu Ile Arg 245 250 255

Arg Glu Ile Val Ser Gly Leu Leu Ala Ala Val Ser Ser Ser Lys Ala $260 \\ 265 \\ 270$

Ser Asn Ser Lys Gln Asp Tyr His 275 280

<210> 1412

<211> 96

<212> PRT <213> Homo sapiens <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (93) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (96) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1412 Pro Gln His Thr Thr Pro Pro Pro Thr Glu Thr Gly Thr Ser Gly Leu 10 Ser Ser Gly Val Ser Gly Ser Thr Thr Ala Ala Ser Ser Pro Xaa Gly 20 25

20 25 30

Leu Val Glu Arg Glu Gly Val Val Leu Val Phe Gly Pro Leu Thr Ala 35 40 45

Asp Ser Gln Glu Val Leu Arg Arg Ala Trp His Trp Ala Gln Arg Leu 50 60

Gln Asp Tyr Cys Ala Thr Gln Pro Ala Leu Phe His Val Gly Phe Pro 65 70 75 80

Val Ser Leu Ile Asp His Glu Gly Phe Gln Val Cys Xaa Asp Ser Xaa 85 90 95

<210> 1413 <211> 172 <212> PRT

<213> Homo sapiens

<400> 1413

Phe Ser Val Phe Val Leu Tyr Ser Leu Arg Asn Ala Ser Gly Leu Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ala Ala Asp Ile Ala Gln Thr Gln Gly Phe Gln Glu Cys Ala Gln Phe 20 25 30

Leu Leu Asn Leu Gln Asn Cys His Leu Asn His Phe Tyr Asn Asn Gly \$35\$

Ile Leu Asn Gly Gly His Gln Asn Val Phe Pro Asn His Ile Ser Val

Gly Thr Asn Arg Lys Arg Cys Leu Glu Asp Ser Glu Asp Phe Gly Val 65 70 75 80

Lys Lys Ala Arg Thr Glu Ala Gln Ser Leu Asp Ser Ala Val Pro Leu $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Thr Asn Gly Asp Thr Glu Asp Asp Ala Asp Lys Met His Val Asp Arg $100 \\ 05 \\ 105$

Glu Phe Ala Val Val Thr Gly Gly Ser Gly Gln Phe Pro Val Ser Cys 115 120 125

Asn Asn Asn Pro Met Val Glu Asp Thr Lys Gln Glu Ser Gly Ser 130 \$135\$

Val Gly Pro Lys Glu Ile Glu Ile Tyr Thr Val Ser Ala Met Gln Thr 145 \$150\$

Pro Cys Arg Cys Arg Asn Gln Tyr Ala Tyr Tyr Phe 165 170

<210> 1414

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE <222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE <222> (107) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (173) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1414 Leu Cys Ala Pro Arg Ser Pro Arg Pro Gly Thr Gly Asp Ala Ala Pro Pro Ser Glu Pro Xaa Ala Ser Ala Ser Gly Thr Asp Leu Leu Gly Trp 20 Leu Ile Lys Glu Glu Ala Ala Ala Met Ser Ala Val Gly Xaa Ala Thr 40 Pro Tyr Leu His His Pro Gly Asp Ser His Ser Gly Arg Val Ser Phe Leu Gly Ala Gln Leu Pro Pro Glu Val Ala Ala Met Ala Arg Leu Leu 70 75 Gly Asp Leu Asp Xaa Ser Thr Phe Arg Lys Leu Leu Lys Phe Val Val Ser Ser Leu Gln Gly Glu Asp Cys Arg Glu Xaa Leu Gln Arg Leu Gly 100 105 Val Ser Ala Asn Leu Pro Glu Glu Gln Leu Gly Ala Leu Leu Ala Gly 120 Met His Thr Leu Leu Gln Gln Ala Leu Arg Leu Pro Pro Thr Ser Leu 130 135 Lys Pro Asp Thr Phe Arg Asp Gln Leu Gln Glu Leu Cys Ile Pro Gln 145 150 155 Asp Leu Val Gly Asp Leu Ala Ser Val Val Phe Gly Xaa Pro Ala Ala 170 Leu Leu Asp Ser Val Ala Gln Gln Gln Gly Ala Trp Leu Pro His Val

Ala Asp Phe Arg Trp Arg Val Asp Val Ala Ile Ser Thr Ser Ala Leu

205

200

Ala Arg Ser Leu Gln Pro Ser Val Leu Met Gln Leu Lys Leu Ser Asp 210 215 220

Gly Ser Ala Tyr Arg Phe Glu Val Pro Thr Ala Lys Phe Gln Glu Leu 225 230 235 240

Arg Tyr Ser Val Ala Leu Val Leu Lys Glu Met Ala Asp Leu Glu Lys $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255 \hspace{1.5cm}$

Arg Cys Glu Arg Arg Leu Gln Asp 260

<210> 1415

<211> 579 <212> PRT

<213> Homo sapiens

<400> 1415

Ala Ala Asp Arg Gly Arg Gly Pro Gly Ala His Arg Pro Ile Ser Gly 1 $$ 5 $$ 10 $$ 15

Asn Met Ala Thr Glu His Val Asn Gly Asn Gly Thr Glu Glu Pro Met \$20\$

Asp Thr Thr Ser Ala Val Ile His Ser Glu Asn Phe Gln Thr Leu Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Asp Ala Gly Leu Pro Gln Lys Val Ala Glu Lys Leu Asp Glu Ile Tyr 50 55 60

Val Ala Gly Leu Val Ala His Ser Asp Leu Asp Glu Arg Ala Ile Glu 65 70 75 80

Ala Leu Lys Glu Phe Asn Glu Asp Gly Ala Leu Ala Val Leu Gln Gln 85 9095

Phe Lys Asp Ser Asp Leu Ser His Val Gln Asn Lys Ser Ala Phe Leu 100 105 110

Cys Gly Val Met Lys Thr Tyr Arg Gln Arg Glu Lys Gln Gly Thr Lys 115 120 125

Val Ala Asp Ser Ser Lys Gly Pro Asp Glu Ala Lys Ile Lys Ala Leu 130 135 140

Leu Glu Arg Thr Gly Tyr Thr Leu Asp Val Thr Thr Gly Gln Arg Lys 145 150 155 160

Tyr Gly Gly Pro Pro Pro Asp Ser Val Tyr Ser Gly Gln Gln Pro Ser

165 170 175 Val Gly Thr Glu Ile Phe Val Gly Lys Ile Pro Arg Asp Leu Phe Glu 180 185 Asp Glu Leu Val Pro Leu Phe Glu Lys Ala Gly Pro Ile Trp Asp Leu 200 Arg Leu Met Met Asp Pro Leu Thr Gly Leu Asn Arg Gly Tyr Ala Phe 215 Val Thr Phe Cys Thr Lys Glu Ala Ala Gln Glu Ala Val Lys Leu Tyr Asn Asn His Glu Ile Arg Ser Gly Lys His Ile Gly Val Cys Ile Ser 250 Val Ala Asn Asn Arg Leu Phe Val Gly Ser Ile Pro Lys Ser Lys Thr 265 Lys Glu Gln Ile Leu Glu Glu Phe Ser Lys Val Thr Glu Gly Leu Thr 275 Asp Val Ile Leu Tyr His Gln Pro Asp Asp Lys Lys Lys Asn Arg Gly Phe Cys Phe Leu Glu Tyr Glu Asp His Lys Thr Ala Ala Gln Ala Arg 310 315 Arg Arg Leu Met Ser Gly Lys Val Lys Val Trp Gly Asn Val Gly Thr 325 Val Glu Trp Ala Asp Pro Ile Glu Asp Pro Asp Pro Glu Val Met Ala 345 Lys Val Lys Val Leu Phe Val Arg Asn Leu Ala Asn Thr Val Thr Glu 360 Glu Ile Leu Glu Lys Ala Phe Ser Gln Phe Glv Lys Leu Glu Arg Val 370 375 380 Lys Lys Leu Lys Asp Tyr Ala Phe Ile His Phe Asp Glu Arg Asp Gly 385 390 Ala Val Lys Ala Met Glu Glu Met Asn Gly Lys Asp Leu Glu Gly Glu 410 Asn Ile Glu Ile Val Phe Ala Lys Pro Pro Asp Gln Lys Arg Lys Glu 420 425 430 Arg Lys Ala Gln Arg Gln Ala Ala Lys Asn Gln Met Tyr Asp Asp Tyr

435 440 445

Tyr Tyr Tyr Gly Pro Pro His Met Pro Pro Pro Thr Ard Gly Ard Gly 455 460

Arg Gly Gly Arg Gly Gly Tyr Gly Tyr Pro Pro Asp Tyr Tyr Gly Tyr 470 475

Glu Asp Tyr Tyr Asp Tyr Tyr Gly Tyr Asp Tyr His Asn Tyr Arg Gly 485 490

Gly Tyr Glu Asp Pro Tyr Tyr Gly Tyr Glu Asp Phe Gln Val Gly Ala 500 505

Arg Gly Arg Gly Arg Gly Ala Arg Gly Ala Ala Pro Ser Arg Gly 520

Arg Gly Ala Ala Pro Pro Arg Gly Arg Ala Gly Tyr Ser Gln Arg Gly 535

Gly Pro Gly Ser Ala Arg Gly Val Arg Gly Ala Arg Gly Gly Ala Gln 545 550

Gln Gln Arg Gly Arg Gly Gln Gly Lys Gly Val Glu Ala Gly Pro Asp 565 570 575

Leu Leu Gln

<210> 1416 <211> 230

<212> PRT

<213> Homo sapiens

<220>

<221> SITE <222> (196)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (204)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (230)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1416 Ser Thr His Ala Ser Ala His Ala Ser Glu Pro Gly Gln Gly Gly Trp Pro Glu Val Pro Ala Glu Gly Ala Ser Arg Pro Cys Ala Ala Val Pro Gly Gly Gln Arg Gly Cys Pro Ala Cys Pro Leu Ala Gly Glu Arg Glu Leu Thr His Leu Leu Leu Pro Ala Ser Glu Gly Asp Thr Glu Pro Gln Val Thr Pro His His Gln Arg Arg Cys Leu Cys Leu Ser Asp Lys Tyr Ser Gln Ala Cys His Pro Leu Gly Ser Lys Val Arg Arg Cys Arg Lys Pro Gly Pro Arg Asp Arg Gln Leu Thr Arg Val Asp Lys Ser Pro Glu 105 Met Trp Cys Ile Val Leu Phe Ser Leu Leu Ala Trp Val Tyr Ala Glu 115 120

Pro Thr Met Tyr Gly Glu Ile Leu Ser Pro Asn Tyr Pro Gln Ala Tyr 135 Pro Ser Glu Val Glu Lys Ser Trp Asp Ile Glu Val Pro Glu Gly Tyr

155 Gly Ile His Leu Tyr Phe Thr His Leu Asp Ile Glu Leu Ser Glu Asn

170 175

150

165

Cys Ala Tyr Asp Ser Val Gln Ile Ile Ser Gly Asp Thr Glu Glu Gly 180 185

Arg Leu Cys Xaa Gln Arg Ser Ser Asn Asn Pro Xaa Leu Gln Leu Trp 200

Lys Ser Ser Lys Ser His Thr Thr Asn Ser Lys Gly Gly Asn Pro Leu 210 215 220

Phe Phe Leu Lys Lys Xaa 225 230

<210> 1417 <211> 106

<212> PRT

<213> Homo sapiens <220> <221> SITE <222> (17) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (75) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1417 Ala Leu Pro Val Met Thr Ala Ala Gly Thr Gly Trp Pro Glu Ala Gly Xaa Leu Pro Glu Val Met Gly Asp Gly Leu Ala Asn Gln Ile Asn Asn 20 25 Pro Glu Val Glu Val Asp Ile Thr Lys Pro Asp Met Thr Ile Arg Gln 40 Gln Ile Met Gln Leu Lys Ile Met Thr Asn Arg Leu Arg Ser Leu Thr 50 55 Thr Ala Thr Thr Trp Thr Ser Arg Thr Pro Xaa Thr Thr Ala Ala Ala Arg Ala Ala Val Met Ala Val Trp Met Thr Ser Ala Ala Gly Arg Ser Ala Gly Arg Ala Pro Ala Pro Gly Arg Pro 100 <210> 1418 <211> 258

<212> PRT

<213> Homo sapiens

<400> 1418

Gly His Leu Leu Cys Ala Trp Gly Pro Gly Pro Gly Pro Leu 10

Gly Pro Ser Glu Glu Asn Phe Asp Met Glu Ala Phe Thr Glu Met Met 20 25

Glu Ala Tyr Val Pro Gly Phe Ala His Ile Pro Arg Gly Thr Ile Gly 35 40 45

Asp Met Met Gln Lys Leu Ser Gly Gln Leu Ser Asp Ala Arg Asn Lys

Glu Asn Leu Gln Pro Gln Ser Ser Gly Val Gln Gly Gln Val Pro Ile 65 70 75 80

Ser Pro Glu Pro Leu Gln Arg Pro Glu Met Leu Lys Glu Glu Thr Arg $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Ser Ser Ala Ala Ala Ala Ala asp Thr Gln Asp Glu Ala Thr Gly Ala 100 \$105\$

Glu Glu Glu Leu Leu Pro Gly Val Asp Val Leu Leu Glu Val Phe Pro \$115\$ \$120\$ \$125\$

Thr Cys Ser Val Glu Glu Ala Glu Trp Val Leu Ala Lys Ala Arg Gly 130 \$135\$

Asp Leu Glu Glu Ala Val Gln Met Leu Val Glu Gly Lys Glu Gly 145 \$150\$

Pro Ala Ala Trp Glu Gly Pro Asn Gln Asp Leu Pro Arg Arg Leu Arg 165 170 175

Gly Pro Gln Lys Asp Glu Leu Lys Ser Phe Ile Leu Gln Lys Tyr Met 180 $$^{-}185

Met Val Asp Ser Ala Glu Asp Gln Lys Ile His Arg Pro Met Ala Pro 195 200 205

Lys Glu Ala Pro Lys Lys Leu Ile Arg Tyr Ile Asp Asn Gln Val Val 210 215 220

Ser Thr Lys Glu Arg Phe Lys Asp Val Arg Asn Pro Glu Ala Glu 225 230225235235

Glu Met Lys Ala Thr Tyr Ile Asn Leu Lys Pro Ala Arg Lys Tyr Arg $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255$

Phe His

<210> 1419

<211> 280

<212> PRT <213> Homo sapiens

<400> 1419

Leu Val Glu Pro Ala Met Ala Glu Pro Ala Ser Val Ala Ala Glu Ser

1				5					10					15	
Leu	Ala	Gly	Ser 20	Arg	Ala	Arg	Ala	Ala 25	Arg	Thr	Val	Leu	Gly 30	Gln	Val
Val	Leu	Pro 35	Gly	Glu	Glu	Leu	Leu 40	Leu	Pro	Glu	Gln	Glu 45	Asp	Ala	Glu
Gly	Pro 50	Gly	Gly	Ala	Val	Glu 55	Arg	Pro	Leu	Ser	Leu 60	Asn	Ala	Arg	Ala
Cys 65	Ser	Arg	Val	Arg	Val 70	Val	Сув	Gly	Pro	Gly 75	Leu	Arg	Arg	Cys	Gly 80
Asp	Arg	Leu	Leu	Val 85	Thr	Lys	Cys	Gly	Arg 90	Leu	Arg	His	Lys	Glu 95	Pro
Gly	Ser	Gly	ser 100	Gly	Gly	Gly	Val	Tyr 105	Trp	Val	Asp	ser	Gln 110	Gln	Lys
Arg	Tyr	Val 115	Pro	Val	Lys	Gly	Asp 120	His	Val	Ile	Gly	Ile 125	Val	Thr	Ala
Lys	Ser 130	Gly	Asp	Ile	Phe	Lys 135	Val	Asp	Val	Gly	Gly 140	Ser	Glu	Pro	Ala
Ser 145	Leu	Ser	Tyr	Leu	Ser 150	Phe	Glu	Gly	Ala	Thr 155	Lys	Arg	Asn	Arg	Pro 160
Asn	Val	Gln	Val	Gly 165	Asp	Leu	Ile	Tyr	Gly 170	Gln	Phe	Val	Val	Ala 175	Asn
Lys	Asp	Met	Glu 180	Pro	Glu	Met	Val	Cys 185	Ile	Asp	ser	Cys	Gly 190	Arg	Ala
Asn	Gly	Met 195	Gly	Val	Ile	Gly	G1n 200	Asp	Gly	Leu	Leu	Phe 205	Lys	Val	Thr
Leu	Gly 210	Leu	Ile	Arg	Lys	Leu 215	Leu	Ala	Pro	Asp	Cys 220	Glu	Ile	Ile	Gln
Glu 225	Val	Gly	Lys	Leu	Tyr 230	Pro	Leu	Glu	Ile	Val 235	Phe	Gly	Met	Asn	Gly 240
Arg	Ile	Trp	Val	Lys 245	Ala	Lys	Thr	Ile	Gln 250	Gln	Thr	Leu	Ile	Leu 255	Ala
Asn	Ile	Leu	G1u 260	Ala	Cys	Glu	His	Met 265	Thr	Ser	Asp	Gln	Arg 270	Lys	Gln

Ile Phe Ser Arg Leu Ala Glu Ser

275 280

<210> 1420

<211> 147 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (104)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1420

Phe Pro Gly Thr Gly Ser Asp Gly Gly Xaa Pro Glu Thr Val Asp Ser 1 $$10\,$

Gly Arg Ser Glu Pro Pro Gly Ala Val Val Leu Pro Arg Leu Arg Glu \$20\$ \$25\$ \$30

Val Gly Arg Glu Arg Thr Trp Arg Pro Gly Ser Met Ala Gly Leu Glu 35 40 45

Leu Leu Ser Asp Gln Gly Tyr Arg Val Asp Gly Arg Arg Ala Gly Glu
50 55 60

Leu Arg Lys Ile Gln Ala Arg Met Gly Val Phe Ala Gln Ala Asp Gly 65 70 75 80

Ser Ala Tyr Ile Glu Gln Gly Asn Thr Lys Ala Leu Ala Val Val Tyr 85 90 95

Gly Pro His Glu Ala Ser Gly Xaa Xaa Gly Trp Gly Ile Val Trp Pro $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Trp Glu Leu Arg Gly Ser Arg Ala Glu Arg Trp Leu Gly Asp Leu Arg 115 120 125

Gly Lys Ala Ala Arg Leu Ile Tyr Thr Ala Met Leu Ser Thr Ala Ser 130 135 140 His Ser Glu 145

<210> 1421

<211> 300

<212> PRT <213> Homo sapiens

<400> 1421

Gly Leu Pro Ile Asn Cys Ile Cys Glu Arg Leu Asn Ile Ile Gly Glu 1 5 10 15

Ile Asn Thr Asp Thr Val Tyr Arg Gln Ala Ile Asn Ser Lys Met Phe \$20\$ \$25\$ \$30\$

Glu Val Asp Met Lys Ile Ala Ala Met His Val Lys Arg Lys Gln Leu $35 \hspace{1cm} 40 \hspace{1cm} 45$

His Gln Leu Leu Pro Asn His Val Leu Gln Lys Lys Lys His Ser 50 60

Thr Glu Gly Val Lys Leu Thr Ala Leu Asn Asp Ser Ser Leu Asp Leu 65 70 75 80

Ser Met Asp Ser Asp Asp Ser Met Ser Val Pro Ser Pro Thr Ser Ala 85 90 95

Thr Lys Thr Ser Pro Leu Asn Ser Ser Gly Ser Ser Gln Gly Arg Asn 100 105 110

Ser Pro Ala Pro Ala Val Thr Ala Ala Ser Val Thr Asn Ile Gln Ala 115 120 125

Thr Glu Val Ser Val Pro Gln Val Asn Ser Ser Glu Ser Ser Gly Gly 130 135 140

Thr Ser Ser Glu Ser Ile Pro Gln Thr Ala Thr Gln Pro Ala Ile Ser 145 150 155 160

Pro Pro Pro Lys Pro Thr Val Ser Arg Val Val Ser Ser Thr Arg Leu 165 170 175

Val Asn Pro Pro Pro Arg Ser Ser Gly Asn Ala Ala Thr Ser Gly Asn 180 185 190

Ala Ala Thr Lys Ile Pro Thr Pro Ile Val Gly Val Lys Arg Thr Ser \$195\$ 200 205

Ser Pro His Lys Glu Glu Ser Pro Lys Lys Thr Lys Thr Glu Glu Asp 215 Glu Thr Ser Glu Asp Ala Asn Cys Leu Ala Leu Ser Gly His Asp Lys 230 235 Thr Glu Ala Lys Glu Gln Leu Asp Thr Glu Thr Ser Thr Thr Gln Ser 245 250 Glu Thr Ile Gln Thr Ala Ala Ser Leu Leu Ala Ser Gln Lvs Thr Ser 260 265 Ser Thr Asp Leu Ser Asp Ile Pro Ala Leu Pro Ala Asn Pro Ile Pro 280 Val Ile Lys Asn Ser Ile Lys Leu Arg Leu Asn Arg 290 295 <210> 1422 <211> 315 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (125) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (177) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1422 Asp Ser Pro Leu His Leu Tyr Gln Lys Asn Ala Arg Leu Lys Asn Val 5 10 Glu Phe Leu Leu Val Asn Arg Ile His Cys Gly Thr Arg His Gln Cys 20 Leu Gly Tyr Ile Lys Arg Arg Leu Ala Met Cys Ala Arg Arg Leu Gly 40 Arg Thr Arg Glu Ala Val Lys Met Met Arg Asp Leu Met Lys Glu Phe 50 5.5 Pro Leu Leu Ser Met Phe Asn Ile His Glu Asn Leu Leu Glu Ala Leu

65

70

75

Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala 105 Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Xaa Glu Ala Ala 115 120 Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu 150 155 Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp 165 170 Xaa Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg 185 Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe 200 Arg Met Ile Pro Tyr Pro Leu Glu Lys Gly His Leu Phe Tyr Pro Tyr 215 Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His 225 230 235 Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe 245 250 Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His 265 Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Phe Leu Ser Thr 275 280 Leu Phe Ala Pro Leu Asn Phe Val Met Glu Lys Val Glu Ser Ile Leu 290 295 300

315

<210> 1423

<211> 164

<212> PRT

<213> Homo sapiens

Pro Ser Ser Leu Trp His Gln Leu Thr Arg Ile 310

<400> 1423
Ser Phe Pro Tyr Leu Phe Leu Gln Ser Lys Asn Arg Trp Cys Phe Ala
1
5
10
15

Arg Glu Leu Val Lys Arg Tyr Gln Glu Lys Trp Asp Lys Leu Leu Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Thr Ser Thr Glu Lys Ser His Val Asp Leu Phe Pro Lys Asp Ser Ile \$35\$

Ile Tyr Leu Thr Ala Asp Ser Pro Asn Val Met Thr Thr Phe Arg His

Asp Lys Val Tyr Val Ile Gly Ser Phe Val Asp Lys Ser Met Gln Pro 65 70 75 80

Gly Thr Ser Leu Ala Lys Ala Lys Arg Leu Asn Leu Ala Thr Glu Cys \$85\$ 90 95

Leu Pro Leu Asp Lys Tyr Leu Gln Trp Glu Ile Gly Asn Lys Asn Leu $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Thr Leu Asp Gln Met Ile Arg Ile Leu Leu Cys Leu Lys Asn Asn Gly 115 120 125

Asn Trp Gln Glu Ala Leu Gln Phe Val Pro Lys Arg Lys His Thr Gly 130 135 140

Phe Leu Glu Ile Ser Gln His Ser Gln Glu Phe Ile Asn Arg Leu Lys 145 150 150

Lys Ala Lys Thr

<210> 1424

<211> 81

<212> PRT

<213> Homo sapiens

<400> 1424

Glu Val Trp Leu Phe Met His Pro Ser Ser Arg Ala Leu Lys Leu His 1 \$10\$

Gly Leu Ile Lys Val Asp Ala Lys Gln Glu Arg Asn Lys Gln Lys Lys
20 25 30

Lys Thr Ser Lys Met Phe Thr Lys Lys Leu Lys Gln Met Ser Ser Ala 35 40 45

Cys Ser Ile Ser Gln Ser Leu Leu Ser Ser Val Val Asn Met Phe Gln $50 \ \ 55 \ \ \ 60$

Met Thr Phe Ser Trp Lys Lys Asn Leu Tyr Asn Ile Val Glu Cys Glu 65 70 75 80

Gly

<210> 1425

<211> 172 <212> PRT

C212> PKI

<213> Homo sapiens

<400> 1425

Met Gly Gly Asp Ala Gly Asp Arg Glu Pro Gly Pro Ala Ala Arg Ser $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Gly Glu Gly Gln Ala Gly Phe Ala Thr Ala Asp His Ser Gly Gln \$20\$ \$25\$ 30

Glu Arg Glu Thr Glu Lys Ala Met Asp Arg Leu Ala Arg Gly Thr Glu 35 40 45

Glu Glu Gly Phe Ala Met Asp Glu Glu Asp Ser Asp Gly Glu Leu Asn 65 70 75 80

Thr Trp Glu Leu Ser Glu Gly Thr Asn Cys Pro Pro Lys Glu Gln Pro 85 90 95

Gly Asp Leu Phe Asn Glu Asp Trp Asp Ser Glu Leu Lys Ala Asp Gln 100 105 110

Gly Asn Pro Tyr Asp Ala Asp Asp Ile Gln Glu Ser Ile Ser Gln Glu 115 120 125

Leu Lys Pro Trp Val Cys Cys Ala Pro Gln Gly Asp Met Ile Tyr Asp 130 135 140

Val Phe Glu Thr Gly Gln Phe Asp Asp Ala Glu Asp 165 170

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<210> 1426
<211> 276
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (273)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (275)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1426
Cys Lys Lys Gln Arg Leu Gln Gln Gln Gln Gln Arg Arg Trp Gln
Gln Gln Gln Arg Arg Gln Gln Gln Gln Arg Arg His Arg Trp
                                25
Gln Gln Gln His His Gln Gln Gln Gln Kaa Lys Ile Leu Ile Lys
         35
                            40
Ser Ser Pro Lys Leu Ser Val Tyr Pro Asp Pro His Leu His Ser Ser
Gln Glu Arg Glu Arg Gly Lys Gly Gly Arg Lys Lys Lys Pro Asn
                    70
                                        75
Asn Leu Ala Glu Thr Ser Gln Arg Met Leu Gln Asn Ser Ala Val Leu
                85
                                    90
                                                        95
Leu Val Leu Val Ile Ser Ala Ser Ala Thr His Glu Ala Glu Gln Asn
            100
                               105
Asp Ser Val Ser Pro Arg Lys Ser Arg Val Ala Ala Gln Asn Ser Ala
                           120
Glu Val Val Arg Cys Leu Asn Ser Ala Leu Gln Val Gly Cys Gly Ala
    130
                       135
                                           140
Phe Ala Cys Leu Glu Asn Ser Thr Cys Asp Thr Asp Gly Met Tyr Asp
```

145 150 155 160

Ile Cys Lys Ser Phe Leu Tyr Ser Ala Ala Lys Phe Asp Thr Gln Gly
165 170 175

Lys Ala Phe Val Lys Glu Ser Leu Lys Cys Ile Ala Asn Gly Val Thr 180 185 190

Ser Lys Val Phe Leu Ala Ile Arg Arg Cys Ser Thr Phe Gln Arg Met 195 200 205

Ile Ala Glu Val Gln Glu Glu Cys Tyr Ser Lys Leu Asn Val Cys Ser 210 215 220

Ile Ala Lys Arg Asn Pro Glu Ala Ile Thr Glu Val Val Gln Leu Pro 225 230 235 240

Asn His Phe Ser Asn Arg Tyr Tyr Asn Arg Leu Val Arg Ser Leu Leu \$245\$

Glu Cys Asp Glu Asp Thr Val Ser Thr Ile Arg Asp Ser Leu Met Glu 260 265 270

Xaa Ile Xaa Ala

<210> 1427

<211> 166

<212> PRT

<213> Homo sapiens

<220> <221> SITE

<221> SITE <222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1427

Cys Asn Ser Arg Ser Gln Gly Leu Ala Leu Thr Gln Val Ala Ser Arg

Ile Pro Val Gly Lys Arg Pro Ala Thr Ser Gly Leu Glu Leu Ala Cys 20 25 30

Val Pro Pro Xaa Pro Ala Pro Pro Thr Ser Arg Val Gln Cys Trp Ala

35 40 45

Arg Ala Ala Gln Glu Xaa Arg Thr Arg Arg Leu Ala Arg His Gln Thr

His Pro Thr Gln Arg Arg Gly Pro Gln Ala Arg Pro Val Val Pro Ser 65 70 75 80

Arg Trp His Cys Ser Ser Pro Leu Leu Gln Val Gln Arg Pro His Arg

Asn Thr Arg Ala Cys Ala Pro Glu Pro Ser Phe Arg Pro Phe Leu His $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Val Pro Thr Trp Asp Ala Glu Cys Ser Gly Ala Arg Thr Pro Ser Thr

Ala Trp Thr Ser Ala Ala Val Lys Leu Arg Glu Ala Cys Leu Ser Gly 130 135 140

Pro Gly Ser Gly Ser His Gln Leu Leu Leu Thr Pro Arg Ser Lys 145 150 155 160

Arg Arg Thr Gly Gly Gly 165

<210> 1428

<211> 112

<212> PRT

<213> Homo sapiens

<220> <221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1428

Gln Arg Gly Ser Thr Ser Glu Thr Pro Arg Arg Arg Ser Ser Val Trp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Pro Ala Cys Xaa Gln Glu Gly Val Lys Ser Gly Met Tyr Val Val Ile 20 25 30

Glu Val Lys Val Ala Thr Gln Glu Gly Lys Glu Ile Thr Cys Arg Ser

35 40 45

Tyr Leu Met Thr Asn Tyr Glu Ser Xaa Pro Pro Ser Pro Gln Tyr Lys 50 55 60

Lys Ile Ile Cys Met Gly Ala Lys Glu Asn Gly Leu Pro Leu Glu Tyr 65 7075 80

Glu Lys Leu Lys Ala Ile Glu Pro Asn Asp Tyr Thr Gly Lys Val 85 90 95

Ser Glu Glu Ile Glu Asp Ile Ile Lys Lys Gly Glu Thr Gln Thr Leu 100 105 110

<210> 1429

<211> 94

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1429

Pro Gly Thr His Val Ser Xaa Pro His Phe Leu Trp Gly Cys Ala Ser 1 5 10 15

Leu Arg Val Ala Asn Arg Met Ser Ser Val Gln Trp Trp Ser Gln Asp \$20\$

Ser Val Cys Arg Ala Asp Phe Leu Ser Leu Leu Lys Thr Leu Asn Thr 35 40 45

Ala Val Phe Ser Ser Gln Gln Arg Asn Lys Ile Ser Leu Ser Asp Asn 50 60

Asp Asn Asn Lys Gln Ser Ile Ala Ser Thr Ala Phe Thr Ala Tyr Xaa 65 $\,\,$ 70 $\,\,$ 75 $\,\,$ 80

Lys Thr Tyr Tyr Val Pro Gly Thr Ser Thr Asp Phe Asn Leu

90

85

<210> 1430

<211> 95

<212> PRT

<213> Homo sapiens

<400> 1430

Leu Ser Lys Gln Arg Pro Ala Val Gly Val His His Ala Phe His Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Pro His Cys Phe Phe Ala Ser Leu Leu Glu Ser Pro Val Ser Pro Arg \$20\$

Leu Ala Met Asp Pro Asn Cys Ser Cys Ala Ala Gly Val Ser Cys Thr $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Ala Gly Ser Cys Lys Cys Lys Glu Cys Lys Cys Thr Ser Cys Lys 50 60

Lys Ser Cys Cys Ser Cys Cys Pro Val Gly Cys Ser Lys Cys Ala Gln 65 70 75 80

Gly Cys Val Cys Lys Gly Ala Ser Glu Lys Cys Ser Cys Cys Asp 85 90 95

<210> 1431

<211> 81

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1431

Pro Arg His Leu Ile Thr Ile Ser Tyr Val Val Ala Val Arg Asn Ala

Phe Gln Val Gly Thr Trp Asp Pro Glu Ser Thr Phe Ala Pro Cys Gly 20 25 30

Gly Arg Leu Pro Xaa Xaa Lys Met Glu Ala Gln Ser Pro Tyr Tyr Gln 35 40 Thr Val Val Val Ser Arg Gly Arg Gly Glu Met Phe Ile Gly His Ser Leu Ser Trp Gly Val Ile Phe Ile Thr Ile His Val Asn Cys Thr Leu 65 70 75 Val <210> 1432 <211> 201 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (114) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (193) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (201) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1432 Thr His Trp Ser Lys Asp Tyr Gln Leu Val Thr Trp Ser Arg Asp Gln 1 Thr Leu Arg Met Trp Arg Val Asp Ser Gln Met Gln Arg Leu Cys Ala 25 Asn Asp Ile Leu Asp Gly Val Asp Glu Phe Ile Glu Ser Ile Ser Leu 40 Leu Pro Glu Pro Glu Lys Thr Leu His Thr Glu Asp Thr Asp His Gln 50 55

His Thr Ala Ser His Gly Glu Glu Glu Ala Leu Lys Glu Asp Pro Pro

75

70

65

Arg Asn Leu Leu Glu Glu Arg Lys Ser Asp Gln Leu Gly Leu Pro Gln 85 90 95

Thr Leu Gln Gln Gln Phe Ser Leu Ile Asn Val Gln Ile Asn Val 100 \$105\$

Asn Xaa Glu Met Asp Ala Ala Asp Arg Ser Cys Thr Val Ser Val His

Cys Ser Asn His Arg Val Lys Met Leu Val Lys Phe Pro Ala Gln Tyr 130 135 140

Pro Asn Asn Ala Ala Pro Ser Phe Gln Phe Ile Asn Pro Thr Thr Ile 145 \$150\$

Thr Ser Thr Met Lys Ala Lys Leu Leu Lys Ile Leu Lys Asp Thr Ala 165 170 175

Leu Gln Lys Val Lys Arg Gly Gln Ser Cys Leu Glu Pro Cys Leu Arg 180 \$185\$

Xaa Ser Ser Pro Ala Leu Ser Pro Xaa 195 200

<210> 1433

<211> 150

<212> PRT

<213> Homo sapiens

<400> 1433

Thr Val Val Ala Trp Glu Gly Gly Tyr His Thr Phe Ser Thr Cys Leu 1 $$ 10 $$ 15

Thr Val Ser Trp Leu Gln Glu Asp Gln Tyr Asp His Leu Asp Ala Ala $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Asp Met Thr Lys Val Glu Lys Ser Thr Asn Glu Ala Met Glu Trp Met 35 40 45

Asn Asn Lys Leu Asn Leu Gln Asn Lys Gln Ser Leu Thr Met Asp Pro 50 60

Val Val Lys Ser Lys Glu Ile Glu Ala Lys Ile Lys Glu Leu Thr Ser 65 70 75 80

Thr Cys Ser Pro Ile Ile Ser Lys Pro Lys Pro Lys Val Glu Pro Pro 85 90 95

Lys Glu Glu Gln Lys Asn Ala Glu Gln Asn Gly Pro Val Asp Gly Gln

100 105 110

Gly Asp Asp Pro Gly Pro Gln Ala Ala Glu Gln Gly Thr Asp Thr Ala 115 120 125

Val Leu Arg Ile Gln Thr Arg Ser Phe Leu Lys Trp Thr Leu Ile Asp 130 135 140

Ser Asn Thr Cys Phe Tyr 145 150

<210> 1434 <211> 145

<212> PRT

<213> Homo sapiens

<400> 1434

His Glu Val Val Glu His Asn Pro Ile Ser Val Leu Asp Ser Pro Ser 1 5 10 15

Ser Asp Cys Phe Ala Glu Trp Pro Gly Glu Leu Gly Arg Gly Trp Met \$20\$ \$25\$ 30

Asp Arg Asn Lys His Thr Glu Ser Glu Val Gln Gly Arg Trp Ser Ser 35 40 45

Phe Ser Leu Cys Arg Val Arg Met Lys Leu Cys Ser Gly Pro Trp Lys 50 55 60

Cys Pro Trp Gln Lys Pro Asn Pro Arg Phe Gln Gly Thr Leu Pro Ser 65 70 75 80

Cys Glu Arg Glu Arg Asn Cys Gly Gln Gly Leu Gly Leu Glu Ala Gly 85 90 95

Arg Trp Asp His Ser Asp Thr Met Gln Asp Asn Arg Trp Gln Leu Gly \$100\$

Leu Lys Ile Lys Met Asn Tyr Met Ile Phe Asp Lys Leu Phe Asn Pro \$115\$

Trp Ser Leu His Phe Leu Tyr Lys Thr Gly Thr Ile Leu Ile Pro Thr 130 135 140

Leu

145

10

25

<211> 46 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (45) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1435 Ala Gly Ala Gln Trp His Asn His Ser Ser Leu Gln Pro Trp Asn Ser 5 Gln Ala Gln Val Ile Leu Pro Ser Ala Pro Ala Arg Val Ala Gly Thr Pro Gly Met His His Tyr Asn Gln Leu Ile Phe Phe Xaa Phe 40

<210> 1436

<210> 1435

<211> 95 <212> PRT

<213> Homo sapiens

<400> 1436

Asn Ser Thr Met Ala Tyr Arg Gly Gln Gly Gln Lys Val Gln Lys Val

Met Val Gln Pro Ile Asn Leu Ile Phe Arg Tyr Leu Gln Asn Arg Ser 20 2.5

Arg Ile Gln Val Trp Leu Tyr Glu Gln Val Asn Met Arg Ile Glu Gly 40

Cys Ile Ile Gly Phe Asp Glu Tyr Met Asn Leu Val Leu Asp Asp Ala

Glu Glu Ile His Ser Lys Thr Lys Ser Arg Lys Gln Leu Gly Arg Ile 70 75

Met Leu Lys Gly Asp Asn Ile Thr Leu Leu Gln Ser Val Ser Asn 85 90

<210> 1437 <211> 113

<212> PRT

<213> Homo sapiens <220> <221> SITE <222> (20) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1437 Gln Gly Ala Leu Gly Ser Pro Val Pro Val Ala Val Ala Pro Leu Thr Pro Pro Ser Xaa Cys Pro Ala Pro Pro Leu Arg Pro Pro His Thr Pro 20 25 Leu Ala Leu Thr Thr Cys Ile Ser Pro Ala Cys Val His Pro Pro Gly 40 Trp Leu Thr His Ser His Ser His Thr Gln Ile Ser Gly Thr Asn Gly Pro Arg Val Leu Arg Thr Pro Ala Gln Gly Leu Cys Arg Ser Leu Pro 70 His Ala Phe Pro Ser Leu Thr Lys Pro Pro Ala Ala Ser Phe Lys Leu 90

Gly Ala Pro Ala Leu Gly Leu Ser Cys Ala Leu Phe Phe Phe Phe Phe 100 105 110

Phe

<210> 1438

<211> 122 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

Arg Asp Val Leu Lys Gly Ser Gln Leu Trp Gln Val Thr Asp Ser Trp 20 25 30

Glu Met Glu Arg Thr Lys Glu Tyr Ser Ser Cys Leu Thr Phe Leu Pro $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ala Ser Gln Ala Ala Pro Ile Pro Thr Ser Gln Cys Thr Ala Pro Pro 65 70 75 80

His Leu Phe Ser Pro Leu Ser Leu Thr Ser Pro Phe Ile Met Ser His 85 90 95

Lys Ser Gly Thr Val Gly Ser His Tyr Asn Leu Leu Cys His Arg Asp $100 \\ 105 \\ 110$

Ser Ile Phe Leu Ile Ser Asn His Val Ser 115 120

<210> 1439 <211> 323

<212> PRT

<213> Homo sapiens

<400> 1439

Phe Val Ser Pro Ala Ile Asp Ser Thr Arg Gly Asp Ser Ser Ser Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Val Ala Glu Leu Gln Glu Lys Leu Gln Glu Glu Lys Ala Lys Phe Leu $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30 \hspace{1.5cm}$

Glu Gln Leu Glu Glu Gln Glu Lys Arg Lys Asn Glu Glu Met Gln Asn

Val Arg Thr Ser Leu Ile Ala Glu Gln Gln Thr Asn Phe Asn Thr Val

Leu Thr Arg Glu Lys Met Arg Lys Glu Asn Ile Ile Asn Asp Leu Ser 65 70 75 80

Asp Lys Leu Lys Ser Thr Met Gln Gln Gln Glu Arg Asp Lys Asp Leu $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ile Glu Ser Leu Ser Glu Asp Arg Ala Arg Leu Leu Glu Glu Lys Lys 100 105 110

Lys Leu Glu Glu Glu Val Ser Lys Leu Arg Ser Ser Ser Phe Val Pro 115 120 125

Ser Pro Tyr Val Ala Thr Ala Pro Glu Leu Tyr Gly Ala Cys Ala Pro

130 135 140 Glu Leu Pro Gly Glu Ser Asp Arg Ser Ala Val Glu Thr Ala Asp Glu 145 150 155 Gly Arg Val Asp Ser Ala Met Glu Thr Ser Met Met Ser Val Gln Glu 170 Asn Ile His Met Leu Ser Glu Glu Lys Gln Arg Ile Met Leu Leu Glu Arg Thr Leu Gln Leu Lys Glu Glu Glu Asn Lys Arg Leu Asn Gln Arg 195 200 Leu Met Ser Gln Ser Met Ser Ser Val Ser Ser Arg His Ser Glu Lys 215 Ile Ala Ile Arg Asp Phe Gln Val Gly Asp Leu Val Leu Ile Ile Leu 230 235 Asp Glu Arg His Asp Asn Tyr Val Leu Phe Thr Val Ser Pro Thr Leu 245 250 Tyr Phe Leu His Ser Glu Ser Leu Pro Ala Leu Asp Leu Lys Pro Gly 260 265 Glu Gly Ala Ser Gly Ala Ser Arg Arg Pro Trp Val Leu Gly Lys Val 280 Met Glu Lys Glu Tyr Cys Gln Ala Lys Lys Ala Gln Asn Arg Phe Lys 290 295 Val Pro Leu Gly Thr Lys Phe Tyr Arg Val Lys Ala Val Ser Trp Asn 305 310 315 Lys Lys Val <210> 1440 <211> 459 <212> PRT <213> Homo sapiens <400> 1440

Thr Arg Trp Trp Gly Pro Val Leu Trp Ser Lys Ser Arg Pro Pro Gly

Arg Thr Arg Gly Pro Ser Gly Trp Arg Val Gly Leu Thr Arg Thr Ser

25

20

Arg	Pro	Ala	Ser	Pro	Ser	Ala	Leu	Arg	Thr	Gly	Asp	Gly	Ser	Ser	Arg
		35					40					45			
Pro	Gly 50	Thr	Pro	Pro	Ala	Ser 55	Pro	Arg	Val	Phe	Glu 60	Val	Arg	Gly	Gly
Ser 65	Gly	Ala	Ser	Ala	Arg 70	Arg	Ser	Ala	Arg	Ser 75	Leu	Pro	Ala	Leu	Glu 80
Ser	Ala	Ile	Met	Asp 85	Val	Leu	Ala	Glu	Ala 90	Asn	Gly	Thr	Phe	Ala 95	Leu
Asn	Leu	Leu	Lys 100	Thr	Leu	Gly	Lys	Asp 105	Asn	Ser	Lys	Asn	Val 110	Phe	Phe
Ser	Pro	Met 115	Ser	Met	Ser	Cys	Ala 120	Leu	Ala	Met	Val	Туг 125	Met	Gly	Ala
Lys	Gly 130	Asn	Thr	Ala	Ala	Gln 135	Met	Ala	Gln	Ile	Leu 140	Ser	Phe	Asn	Lys
Ser 145	Gly	Gly	Gly		Asp 150	Ile	His	Gln	Gly	Phe 155	Gln	Ser	Leu	Leu	Thr 160
Glu	Val	Asn	Lys	Thr 165	Gly	Thr	Gln	Tyr	Leu 170	Leu	Arg	Met	Ala	Asn 175	Arg
Leu	Phe	Gly	Glu 180	Lys	Ser	Cys	Asp	Phe 185	Leu	ser	ser	Phe	Arg 190	Asp	Ser
Cys	Gln	Lys 195	Phe	Tyr	Gln	Ala	Glu 200	Met	Glu	Glu	Leu	Asp 205	Phe	Ile	Ser
Ala	Val 210	Glu	Lys	Ser	Arg	Lys 215	His	Ile	Asn	Thr	Trp 220	Val	Ala	Glu	Lys
Thr 225	Glu	Gly	Lys	Ile	Ala 230	Glu	Leu	Leu	Ser	Pro 235	Gly	Ser	Val	Asp	Pro 240
Leu	Thr	Arg	Leu	Val 245	Leu	Val	Asn	Ala	Val 250	Tyr	Phe	Arg	Gly	Asn 255	Trp
Asp	Glu	Gln	Phe 260	Asp	Lys	Glu	Asn	Thr 265	Glu	Glu	Arg	Leu	Phe 270	Lys	Val
Ser	Lys	Asn 275	Glu	Glu	Lys	Pro	Val 280	Gln	Met	Met	Phe	Lys 285	Gln	Ser	Thr
Phe	Lys 290	Lys	Thr	Tyr	Ile	Gly 295	Glu	Ile	Phe	Thr	Gln 300	Ile	Leu	Val	Leu

Pro Tyr Val Gly Lys Glu Leu Asn Met Ile Ile Met Leu Pro Asp Glu 305 310 315 320

Thr Thr Asp Leu Arg Thr Val Glu Lys Glu Leu Thr Tyr Glu Lys Phe 325 330 335

Val Glu Trp Thr Arg Leu Asp Met Met Asp Glu Glu Glu Val Glu Val 340 345 350

Ser Leu Pro Arg Phe Lys Leu Glu Glu Ser Tyr Asp Met Glu Ser Val 355 360 365

Leu Arg Asn Leu Gly Met Thr Asp Ala Phe Glu Leu Gly Lys Ala Asp $370 \hspace{1.5cm} 375 \hspace{1.5cm} 380$

Phe Ser Gly Met Ser Gln Thr Asp Leu Ser Leu Ser Lys Val Val His 385 \$390\$

Lys Ser Phe Val Glu Val Asn Glu Glu Gly Thr Glu Ala Ala Ala Ala 405 410 415

Thr Ala Ala Ile Met Met Met Arg Cys Ala Arg Phe Val Pro Arg Phe 420 425 430

Cys Ala Asp His Pro Phe Leu Phe Phe Ile Gln His Ser Lys Thr Asn 435 440 445

Gly Ile Leu Phe Cys Gly Arg Phe Ser Ser Pro 450 455

<210> 1441

<211> 113

<212> PRT

<213> Homo sapiens

<400> 1441

Leu Val Glu Ala Leu Lys Leu Gln Glu Gln Leu Lys Ala Pro Val Lys

1 5 10 15

Thr Leu Ser Glu Gly Ile Lys Arg Lys Leu Cys Phe Val Leu Ser Ile 20 25 30

Leu Gly Asn Pro Ser Val Val Leu Leu Asp Glu Leu Phe Thr Gly Met 35 40 45

Asp Pro Glu Gly Gln Gln Gln Met Trp Gln Ile Leu Gln Ala Thr Ile 50 55 60

Lvs Asn Gln Glu Arq Gly Ala Leu Leu Thr Thr His Tyr Met Ser Glu 65 Ala Lys Ser Leu Cys Asp Arg Val Ala Ile Met Val Ser Gly Thr Leu 90 Arg Cys Ile Gly Ser Ile Gln Gln Leu Lys Ser Leu Val Lys Ile Ile 100 105 Tyr <210> 1442 <211> 839 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (291) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (295) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (683) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1442 Ala Glu His Trp Gly Ala Ile Pro Pro Ala Gly Gly Gly Ala Val Gly Ile Ser Glu Thr Phe Leu Gly Lys Lys Val Arq Thr Lys Thr Leu Ser 20 25 Glu Asp Asp Leu Lys Glu Ile Pro Ala Glu Gln Met Asp Phe Arg Ala

Asn Leu Gln Arg Gln Val Lys Pro Lys Thr Val Ser Glu Glu Glu Arg 50 55 60

Lys Val His Ser Pro Gln Gln Val Asp Phe Arg Ser Val Leu Ala Lys 65 70 75 80

Lys Gly Thr Ser Lys Thr Pro Val Pro Glu Lys Val Pro Pro Pro Lys

Pro Ala Thr Pro Asp Phe Arg Ser Val Leu Gly Gly Lys Lys Lys Leu Pro Ala Glu Asn Gly Ser Ser Ser Ala Glu Thr Leu Asn Ala Lys Ala Val Glu Ser Ser Lys Pro Leu Ser Asn Ala Gln Pro Ser Gly Pro Leu Lys Pro Val Gly Asn Ala Lys Pro Ala Glu Thr Leu Lys Pro Met Gly Asn Ala Lys Pro Ala Glu Thr Leu Lys Pro Met Gly Asn Ala Lys Pro Asp Glu Asn Leu Lys Ser Ala Ser Lys Glu Glu Leu Lys Lys Asp Val Lys Asn Asp Val Asn Cys Lys Arg Gly His Ala Gly Thr Thr Asp Asn Glu Lys Arg Ser Glu Ser Gln Gly Thr Ala Pro Ala Phe Lys Gln Lys Leu Gln Asp Val His Val Ala Glu Gly Lys Lys Leu Leu Leu Gln Cys Gln Val Ser Ser Asp Pro Pro Ala Thr Ile Ile Trp Thr Leu Asn Gly Lys Thr Leu Lys Thr Thr Lys Phe Ile Ile Leu Ser Gln Glu Gly Ser Leu Cys Ser Val Ser Ile Glu Lys Ala Leu Pro Glu Asp Arg Gly Leu Tyr Lys Xaa Val Ala Lys Xaa Asp Ala Gly Gln Ala Glu Cys Ser Cys Gln Val Thr Val Asp Asp Ala Pro Ala Ser Glu Asn Thr Lys Ala Pro Glu Met Lys Ser Arg Arg Pro Lys Ser Ser Leu Pro Pro Val Leu Gly Thr Glu Ser Asp Ala Thr Val Lys Lys Pro Ala Pro Lys Thr Pro Pro Lys Ala Ala Met Pro Pro Gln Ile Ile Gln Phe Pro Glu Asp Gln

3	:55		360		365	
Lys Val A	irg Ala Gl	y Glu Ser 375		Leu Phe	Gly Lys	Val Thr Gly
Thr Gln F 385	ro Ile Th	r Cys Thi 390	Trp Met	Lys Phe 395	Arg Lys	Gln Ile Gln 400
Glu Ser G	lu His Me 40		Glu Asn	Ser Glu 410	Asn Gly	Ser Lys Leu 415
Thr Ile L	eu Ala Al 420	a Arg Glr	Glu His 425		Cys Tyr	Thr Leu Leu 430
	sn Lys Le 35	u Gly Ser	Arg Gln 440	Ala Gln	Val Asn 445	Leu Thr Val
Val Asp L 450	ys Pro As	Pro Pro 455		Thr Pro	Cys Ala 460	Ser Asp Ile
Arg Ser S 465	er Ser Le	Thr Leu 470	Ser Trp	Tyr Gly 475	Ser Ser	Tyr Asp Gly 480
Gly Ser A	la Val Gl: 48		Ser Ile	Glu Ile 490	Trp Asp	Ser Ala Asn 495
Lys Thr T	rp Lys Gl: 500	ı Leu Ala	Thr Cys 505	Arg Ser	Thr Ser	Phe Asn Val 510
	eu Leu Pro 15	Asp His	Glu Tyr 520	Lys Phe	Arg Val 525	Arg Ala Ile
Asn Val T 530	yr Gly Thi	Ser Glu 535	Pro Ser	Gln Glu	Ser Glu 540	Leu Thr Thr
Val Gly G 545	lu Lys Pro	Glu Glu 550	Pro Lys	Asp Glu 555	Val Glu	Val Ser Asp 560
Asp Asp G	lu Lys Glu 56		Val Asp	Tyr Arg 570	Thr Val	Thr Ile Asn 575
Thr Glu G	ln Lys Val	Ser Asp	Phe Tyr 585	Asp Ile	Glu Glu	Arg Leu Gly 590
	ys Phe Gly 95	Gln Val	Phe Arg 600	Leu Val	Glu Lys 605	Lys Thr Arg
Lys Val T	rp Ala Gly	Lys Phe 615	Phe Lys		Ser Ala 620	Lys Glu Lys
Glu Asn I	Le Arg Glr	Glu Ile	Ser Ile	Met Asn	Cys Leu	His His Pro

625 630 635 640 Lys Leu Val Gln Cys Val Asp Ala Phe Glu Glu Lys Ala Asn Ile Val Met Val Leu Glu Ile Val Ser Gly Gly Glu Leu Phe Glu Arg Ile Ile 665 Asp Glu Asp Phe Glu Leu Thr Glu Arg Glu Xaa Ile Lys Tyr Met Arg 675 680 Gln Ile Ser Glu Gly Val Glu Tyr Ile His Lys Gln Gly Ile Val His 695 Leu Asp Leu Lys Pro Glu Asn Ile Met Cys Val Asn Lys Thr Gly Thr Arg Ile Lys Leu Ile Asp Phe Gly Leu Ala Arg Arg Leu Glu Asn Ala Gly Ser Leu Lys Val Leu Phe Gly Thr Pro Glu Phe Val Ala Pro Glu 740 745 Val Ile Asn Tyr Glu Pro Ile Gly Tyr Ala Thr Asp Met Trp Ser Ile 760 Gly Val Ile Cys Tyr Ile Leu Val Ser Gly Leu Ser Pro Phe Met Gly Asp Asn Asp Asn Glu Thr Leu Ala Asn Val Thr Ser Ala Thr Trp Asp 785 790 795 Phe Asp Asp Glu Ala Phe Asp Glu Ile Ser Asp Asp Ala Lys Asp Phe 805 Ile Ser Asn Leu Leu Lys Lys Asp Met Lys Asn Arg Leu Asp Cys Thr 825 His Ala Phe Ser Ile His Gly 835 <210> 1443 <211> 111 <212> PRT <213> Homo sapiens

Cys Ser Cys Thr Val Arg Ala Arg Arg Arg Leu Asn Arg Gly Leu Arg

10

<400> 1443

. 5

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Arg Lys Gln His Ser Leu Leu Lys Arg Leu Arg Lys Ala Lys Lys Glu
             20
                                 25
                                                     3.0
Ala Pro Pro Met Glu Lys Pro Glu Val Val Lys Thr His Leu Arg Asp
         35
                             40
Met Ile Ile Leu Pro Glu Met Val Gly Ser Met Val Gly Val Tyr Asn
Gly Lys Thr Phe Asn Gln Val Glu Ile Lys Pro Glu Met Ile Gly His
 65
                    70
                                        75
Tyr Leu Gly Glu Phe Ser Ile Thr Tyr Lys Pro Val Lys His Gly Arg
                 85
                                     9.0
Pro Gly Ile Gly Ala Thr His Ser Ser Arg Phe Ile Pro Leu Lys
            100
                                105
                                                    110
<210> 1444
<211> 531
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (446)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (474)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
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<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (502)

<220>
<221> SITE
<222> (504)

< 40	0> 1	444													
Glu 1	Lys	Ser	Val	Gln 5	Xaa	Ser	Lys	Arg	Glu 10	Ser	Val	Ser	His	Arg 15	Ser
Pro	Ser	Pro	Glu 20	Pro	Ile	Tyr	Asn	Ser 25	Glu	Gly	Lys	Arg	Leu 30	Asn	Thr
Arg	Glu	Phe 35	Arg	Thr	Arg	Lys	Lys 40	Leu	Glu	Glu	Glu	Arg 45	His	Asn	Leu
Ile	Thr 50	Glu	Met	Val	Ala	Leu 55	Asn	Pro	Asp	Phe	Lys 60	Pro	Pro	Ala	Asp
Tyr 65	Lys	Pro	Pro	Ala	Thr 70	Arg	Val	Ser	Asp	Lys 75	Val	Met	Ile	Pro	Gln 80
Asp	G1u	Tyr	Pro	Glu 85	Ile	Asn	Phe	Val	Gly 90	Leu	Leu	Ile	Gly	Pro 95	Arg
Gly	Asn	Thr	Leu 100	Lys	Asn	Ile	Glu	Lys 105	G1u	Cys	Asn	Ala	Lys 110	Ile	Met
Ile	Arg	Gly 115	Lys	Gly	Ser	Va1	Lys 120	Glu	Gly	Lys	Val	Gly 125	Arg	Lys	Asp
Gly	Gln 130	Met	Leu	Pro	Gly	Glu 135	Asp	Glu	Pro	Leu	His 140	Ala	Leu	Val	Thr
Ala 145	Asn	Thr	Met	Glu	Asn 150	Val	Lys	Lys	Ala	Val 155	Glu	Gln	Ile	Arg	Asn 160
Ile	Leu	Lys	Gln	Gly 165	Ile	Glu	Thr	Pro	Glu 170	Asp	Gln	Asn	Asp	Leu 175	Arg
Lys	Met	Gln	Leu 180	Arg	Glu	Leu	Ala	Arg 185	Leu	Asn	Gly	Thr	Leu 190	Arg	Glu
Asp	Asp	Asn 195	Arg	Ile	Leu	Arg	Pro 200	Trp	Gln	Ser	Ser	Glu 205	Thr	Arg	Ser
Ile	Thr 210	Asn	Thr	Thr	Val	Cys 215	Thr	Lys	Cys	Gly	Gly 220	Ala	Gly	His	Ile
Ala 225	Ser	Asp	Cys	Lys	Phe 230	Gln	Arg	Pro	Gly	Asp 235	Pro	Gln	Ser	Ala	G1n 240
Asp	Lys	Ala	Arg	Met 245	Asp	Lys	Glu	Tyr	Leu 250	Ser	Leu	Met	Ala	Glu 255	Leu
Gly	Glu	Ala	Pro 260	Val	Pro	Ala	Ser	Val 265	Gly	Ser	Thr	Ser	Gly 270	Pro	Ala

Thr	Thr	Pro 275		Ala	Ser	Ala	Pro 280	Arg	Pro	Ala	Ala	Pro 285	Ala	Asn	Asn
Pro	Pro 290		Pro	Ser	Leu	Met 295	Ser	Thr	Thr	Gln	Ser 300	Arg	Pro	Pro	Trp
Met 305	Asn	Ser	Gly	Pro	Ser 310	Glu	Ser	Arg	Pro	Туг 315	His	Gly	Met	His	Gly 320
Gly	Gly	Pro	Gly	Gly 325	Pro	Gly	Gly	Gly	Pro 330	His	Ser	Phe	Pro	His 335	Pro
Leu	Pro	Ser	Leu 340	Thr	Gly	Gly	His	Gly 345	Gly	His	Pro	Met	Gln 350	His	Asn
Pro	Asn	Gly 355	Pro	Pro	Pro	Pro	Trp 360	Met	Gln	Pro	Pro	Pro 365	Pro	Pro	Met
Asn	Gln 370	Gly	Pro	His	Pro	Pro 375	Gly	His	His	Gly	Pro 380	Pro	Pro	Met	Asp
Gln 385	Tyr	Leu	Gly	Ser	Thr 390	Pro	Val	Gly	Ser	Gly 395	Val	Tyr	Arg	Leu	His 400
Gln	Gly	Lys	Gly	Met 405	Met	Pro	Pro	Pro	Pro 410	Met	Gly	Met	Met	Pro 415	Pro
Pro	Pro	Pro	Pro 420	Pro	Ser	Gly	Gln	Pro 425	Pro	Pro	Pro	Pro	Ser 430	Gly	Pro
Leu	Pro	Pro 435	Trp	Gln	Gln	Gln	Gln 440	Gln	Gln	Pro	Pro	Pro 445	Xaa	Pro	Pro
Pro	Ser 450	Ser	Ser	Met	Ala	Ser 455	Ser	Thr	Pro	Leu	Pro 460	Trp	Gln	Gln	Asn
Thr 465	Thr	Thr	Thr	Thr	Thr 470	Ser	Ala	Gly	Xaa	Gly 475	Ser	Ile	Pro	Pro	Trp 480
Gln	Gln	Gln	Gln	Ala 485	Ala	Ala	Ala	Ala	Ser 490	Pro	Gly	Ala	Pro	Gln 495	Met
Gln	Gly	Asn	Pro 500	Thr	Xaa	Gly	Xaa	Met 505	Ala	Leu	Leu	Gln	Trp 510	Ile	Ser
Thr	Trp	Glu 515	Val	Arg	Leu	Trp	Ala 520	Leu	Gly	Ser	Ile	Ala 525	Cys	Ile	Lys

Glu Lys Val 530 <210> 1445

<211> 99

<212> PRT

<213> Homo sapiens

<400> 1445

Ser Thr Cys Arg Val Val Glu Val Gly Lys Gln Gln Gly Thr Leu Tyr
1 5 10 15

Asn Ala Arg Gln Leu Gln Tyr Gly Lys Asn Gly Pro Gly Pro Trp Asp \$20\$

Lys Ile Arg Val Val Leu Thr Pro Arg Gly Arg Gly Gln Pro Ala Phe 35 40 45

Arg Val Ala Ser Ser Val Pro Leu Gln Ser Asp Cys Val His Leu Val

Gln Leu Met Ser Glu Ser Pro Ala Leu Gly Tyr Phe Ile Leu Val Arg 65 70 75 80

Thr Leu Thr Ser His Ile Gly Ser Ile Asn Ser Phe Gly Lys Glu Leu $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Ile Ser Phe

<210> 1446

<211> 65

<212> PRT

<213> Homo sapiens

<400> 1446

Gln Pro Pro Gln Thr Phe Trp Gln Ala Leu Gln Leu Cys Tyr Phe Ile 1 5 10 15

Gln Leu Ile Leu Gln Ile Glu Ser Asn Gly His Ser Val Ser Phe Gly

Arg Met Asp Gln Tyr Leu Tyr Pro Tyr Tyr Arg Arg Asp Val Glu Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Asn Gln Thr Leu Asp Arg Glu His Ala Ile Glu Met Cys Ile Ala Ala 50 55 60

Gly

65

<210> 1447

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (116)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1447

Tyr Cys Ser Ala Ala Met Ala Glu Pro Gln Pro Pro Ser Gly Gly Leu
1 5 10 15

Thr Asp Glu Ala Ala Leu Ser Cys Cys Ser Asp Ala Asp Pro Ser Thr 20 25 30

Lys Asp Phe Leu Leu Gln Gln Thr Met Leu Arg Val Lys Asp Pro Lys 35 40 45

Lys Ser Leu Asp Phe Tyr Thr Arg Val Leu Gly Met Thr Leu Ile Gln $50 \ \ 55 \ \ 60$

Lys Cys Asp Phe Pro Ile Met Lys Phe Ser Leu Tyr Phe Leu Ala Tyr 65 70 75 80

Glu Asp Lys Asn Asp Ile Pro Lys Glu Lys Asp Glu Lys Ile Ala Trp \$85\$ 90 95

Ala Leu Ser Arg Lys Ala Thr Leu Glu Leu Thr His Asn Trp Gly Thr 100 105 110

Glu Asp Asp Xaa Thr Gln Ser Tyr His Asn Gly Asn Ser Asp Pro Arg 115 120 125

Gly Phe Gly His Ile Gly Ile Ala Val Pro Asp Val Tyr Ser Ala Cys 130 135 140

Lys Arg Phe Glu Glu Leu Gly Val Lys Phe Val Lys Lys Pro Asp Asp 145 150 155

Gly Lys Met Lys Gly Leu Ala Phe Ile Gln Asp Pro Asp Gly Tyr Trp 165 170 175

Ile Glu Ile Leu Asn Pro Asn Lys Met Ala Thr Leu Met 180 185 <210> 1448 <211> 219 <212> PRT <213> Homo sapiens <400> 1448 Phe Glu Glu Arg Tyr Thr Phe Glu Ile Pro Phe Leu Glu Ala Gln Arg 5 Arg Thr Leu Leu Thr Val Val Asp Phe Asp Lys Phe Ser Arg His 25 Cys Val Ile Gly Lys Val Ser Val Pro Leu Cys Glu Val Asp Leu Val Lys Gly Gly His Trp Trp Lys Ala Leu Ile Pro Ser Ser Gln Asn Glu Val Glu Leu Gly Glu Leu Leu Ser Leu Asn Tyr Leu Pro Ser Ala 70 75 Gly Arg Leu Asn Val Asp Val Ile Arg Ala Lys Gln Leu Leu Gln Thr Asp Val Ser Gln Gly Ser Asp Pro Phe Val Lys Ile Gln Leu Val His Gly Leu Lys Leu Val Lys Thr Lys Lys Thr Ser Phe Leu Arg Gly Thr 115 Ile Asp Pro Phe Tyr Asn Glu Ser Phe Ser Phe Lys Val Pro Gln Glu 135 Glu Leu Glu Asn Ala Ser Leu Val Phe Thr Val Phe Gly His Asn Met 150 155 Lys Ser Ser Asn Asp Phe Ile Gly Arg Ile Val Ile Gly Gln Tyr Ser 165 Ser Gly Pro Ser Glu Thr Asn His Trp Arg Arg Met Leu Asn Thr His 185

Arg Thr Ala Val Glu Gln Trp His Ser Leu Arg Ser Arg Ala Glu Cys

Asp Arg Val Ser Pro Ala Ser Leu Glu Val Thr

215

210

<210> 1449 <211> 44 <212> PRT <213> Homo sapiens <400> 1449 Asp Trp Val Phe Lys Leu Ala Phe Val Asn Leu Ile Ala Leu Arg Leu 10 Pro Ser Asn Glu Lys Lys Ser Gln Asn Phe Tyr Leu Val Phe Val His 25 Phe Leu Leu Lys Cys Asn His Met Ile Leu Val Cys 35 40 <210> 1450 <211> 272 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (183) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1450 Ser Thr Pro Cys Trp Pro Leu Pro Pro Val Trp Leu Gly Cys Gly Glu 5 Met Cys Leu Cys Val Gln Val Pro Glu Arg Asp Ser Val Ser Ser Val Ser Ser Ala Thr Ser Ser Ser Ser Ser Ala His Ser Val Asp Ser Glu 40 Asp Met Tyr Ala Asp Leu Ala Ser Pro Val Ser Ser Ala Ser Ser Arg 50 Ser Pro Ala Pro Ala Gln Thr Arg Lys Glu Lys Gly Lys Ser Lys Lys 65 7.0 Glu Asp Gly Val Lys Glu Glu Lys Arg Lys Arg Asp Ser Ser Thr Gln Pro Pro Lys Ser Ala Lys Pro Pro Ala Gly Gly Lys Ser Ser Gln Gln 100 105 110

Pro Ser Thr Pro Gln Gln Ala Pro Pro Gly Gln Pro Gln Gln Gly Thr

115 120 125

Phe Val Ala His Lys Glu Ile Lys Leu Thr Leu Leu Asn Lys Ala Ala 130 135 140

Asp Lys Gly Ser Arg Lys Arg Tyr Glu Pro Ser Asp Lys Asp Arg Gln 145 150 155 160

Ser Pro Pro Pro Ala Lys Arg Pro Asn Thr Ser Pro Asp Arg Gly Ser 165 170 175

Arg Asp Arg Lys Ser Gly Xaa Arg Leu Gly Ser Pro Lys Pro Glu Arg 180 185 190

Gln Arg Gly Gln Asn Ser Lys Ala Pro Ala Ala Pro Ala Asp Arg Lys \$195\$

Arg Gln Leu Ser Pro Gln Ser Lys Ser Ser Ser Lys Val Thr Ser Val 210 \$215\$

Pro Gly Lys Ala Ser Asp Pro Gly Ala Ala Ser Thr Lys Ser Gly Lys 225 235 240

Ala Ser Thr Leu Ser Arg Arg Glu Glu Leu Leu Lys Gln Leu Lys Ala \$245\$

Val Glu Asp Ala Ile Ala Arg Lys Arg Ala Lys Ile Pro Gly Lys Ala $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$

<210> 1451

<211> 164

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (122)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (150)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1451

Val Met Ala Ala Cys Arg Tyr Cys Cys Ser Cys Leu Arg Leu Arg Pro

Leu Ser Asp Gly Pro Phe Leu Leu Pro Arg Arg Asp Arg Ala Leu Thr 20 25 30

Gln Leu Gln Val Arg Ala Leu Trp Ser Ser Ala Gly Ser Arg Ala Val $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ala Val Asp Leu Gly Asn Arg Lys Leu Glu Ile Ser Ser Gly Lys Leu 50 60

Ala Arg Phe Ala Asp Gly Ser Ala Val Val Gln Ser Gly Asp Thr Ala 65 70 75 80

Val Met Val Thr Ala Val Ser Lys Thr Lys Pro Ser Pro Ser Gln Phe \$85\$ 90 95

Met Pro Leu Val Val Asp Tyr Arg Gln Lys Ala Ala Ala Ala Gly Arg $100 \hspace{1cm} 105 \hspace{1cm} 110$

Ile Pro Thr Asn Tyr Leu Arg Arg Glu Xaa Gly Thr Ser Asp Lys Glu 115 120 125

Ile Leu Thr Ser Arg Ile Ile Asp Arg Ser Ile Arg Pro Leu Phe Xaa $130 \hspace{1cm} 135 \hspace{1cm} 140$

Ala Gly Tyr Phe Tyr Xaa Thr Gln Val Leu Cys Asn Leu Leu Ala Val 145 \$150\$

Asp Gly Val Asn

<210> 1452

<211> 206

<212> PRT

<213> Homo sapiens

<400> 1452

Ala Asp Cys Val Phe Val Glu Asp Val Ala Val Val Cys Glu Glu Thr
1 5 10 15

Ala Leu Ile Thr Arg Pro Gly Ala Pro Ser Arg Arg Lys Glu Val Asp
20 25 30

Met Met Lys Glu Ala Leu Glu Lys Leu Gln Leu Asn Ile Val Glu Met 35 40 45

Lys Asp Glu Asn Ala Thr Leu Asp Gly Gly Asp Val Leu Phe Thr Gly 50 60

arg Glu Phe Phe Val Gly Leu Ser Lys Arg Thr Asn Gln Arg Gly Ala 65 70 75 80

Glu Ile Leu Ala Asp Thr Phe Lys Asp Tyr Ala Val Ser Thr Val Pro 85 90 95

Val Ala Asp Gly Leu His Leu Lys Ser Phe Cys Ser Met Ala Gly Pro $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Asn Leu Ile Ala Ile Gly Ser Ser Glu Ser Ala Gln Lys Ala Leu Lys 115 120 125

Ile Met Gln Gln Met Ser Asp His Arg Tyr Asp Lys Leu Thr Val Pro 130 135 140

Asp Asp Ile Ala Ala Asn Cys Ile Tyr Leu Asn Ile Pro Asn Lys Gly 145 150 150 155

His Val Leu Leu His Arg Thr Pro Glu Glu Tyr Pro Glu Ser Ala Lys 165 170 175

Val Tyr Glu Lys Leu Lys Asp His Met Leu Ile Pro Val Ser Met Ser 180 185 190

Glu Leu Glu Lys Val Asp Gly Leu Leu Thr Cys Cys Gln Phe 195 200 205

<210> 1453 <211> 645

<212> PRT

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (608)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1453

Ala His Ala Ser Gly Lys Lys Pro Pro Asn Arg Pro Gly Ile Thr Phe

Glu Ile Gly Ala Arg Leu Glu Ala Leu Asp Tyr Leu Gln Lys Trp Tyr 20 25 30

Pro Ser Arg Ile Glu Lys Ile Asp Tyr Glu Glu Gly Lys Met Leu Val His Phe Glu Arg Trp Ser His Arg Tyr Asp Glu Trp Ile Tyr Trp Asp Ser Asn Arg Leu Arg Pro Leu Glu Arg Pro Ala Leu Arg Lys Glu Gly Leu Lys Asp Glu Glu Asp Phe Phe Asp Phe Lys Ala Gly Glu Glu Val 90 Leu Ala Arg Trp Thr Asp Cys Arg Tyr Tyr Pro Ala Lys Ile Glu Ala 100 105 Ile Asn Lys Glu Gly Thr Phe Thr Val Gln Phe Tyr Asp Gly Val Ile 120 Arg Cys Leu Lys Arg Met His Ile Lys Ala Met Pro Glu Asp Ala Lys 135 Gly Gln Asp Trp Ile Ala Leu Val Lys Ala Ala Ala Ala Ala Ala Ala 145 150 155 160 Lys Asn Lys Thr Gly Ser Lys Pro Arg Thr Ser Ala Asn Ser Asn Lys Asp Lys Asp Lys Asp Glu Arg Lys Trp Phe Lys Val Pro Ser Lys Lys 185 Glu Glu Thr Ser Thr Cys Ile Ala Thr Pro Asp Val Glu Lys Lys Glu 195 200 205 Asp Leu Pro Thr Ser Ser Glu Thr Phe Gly Leu His Val Glu Asn Val 210 215 Pro Lys Met Val Phe Pro Gln Pro Glu Ser Thr Leu Ser Asn Lys Arg 230 235 Lys Asn Asn Gln Gly Asn Ser Phe Gln Ala Lys Arg Ala Arg Leu Asn 245 250 Lys Ile Thr Gly Leu Leu Ala Ser Lys Ala Val Gly Val Asp Gly Ala 260 265 Glu Lys Lys Glu Asp Tyr Asn Glu Thr Ala Pro Met Leu Glu Gln Ala 275 280 Ile Ser Pro Lys Pro Gln Ser Gln Lys Lys Asn Glu Ala Asp Ile Ser

295

300

Ser 305	Ser	Ala	Asn	Thr	Gln 310	Lys	Pro	Ala	Leu	Leu 315	Ser	Ser	Thr	Leu	Ser 320
Ser	Gly	Lys	Ala	Arg 325	Ser	Lys	Lys	Cys	Lys 330	His	Glu	Ser	Gly	Asp 335	ser
Ser	Gly	Cys	11e 340	Lys	Pro	Pro	Lys	Ser 345	Pro	Leu	Ser	Pro	Glu 350	Leu	Ile
Gln	Val	Glu 355	Asp	Leu	Thr	Leu	Val 360	Ser	Gln	Leu	Ser	Ser 365	Ser	Val	Ile
Asn	Lys 370	Thr	Ser	Pro	Pro	Gln 375	Pro	Val	Asn	Pro	Pro 380	Arg	Pro	Phe	Lys
His 385	Ser	Glu	Arg	Arg	Arg 390	Arg	Ser	Gln	Arg	Leu 395	Ala	Thr	Leu	Pro	Met 400
Pro	Asp	Asp	Ser	Val 405	Glu	Lys	Val	Ser	Ser 410	Pro	Ser	Pro	Ala	Thr 415	Asp
Gly	Lys	Val	Phe 420	Ser	Ile	Ser	Ser	Gln 425	Asn	Gln	Gln	Glu	Ser 430	Ser	Val
Pro	Glu	Val 435	Pro	Asp	Val	Ala	His 440	Leu	Pro	Leu	Glu	Lys 445	Leu	Gly	Pro
Cys	Leu 450	Pro	Leu	Asp	Leu	Ser 455	Arg	Gly	Ser	Glu	Val 460	Thr	Ala	Pro	Val
Ala 465	Ser	Asp	Ser	Ser	Tyr 470	Arg	Asn	Glu	Cys	Pro 475	Arg	Ala	Glu	Lys	Glu 480
Asp	Thr	Gln	Met	Leu 485	Pro	Asn	Pro	Ser	Ser 490	Lys	Ala	Ile	Ala	Asp 495	Gly
Arg	Gly	Ala	Pro 500	Ala	Ala	Ala	Gly	Ile 505	Ser	Lys	Thr	Glu	Lys 510	Lys	Val
Lys	Leu	Glu 515	Asp	Lys	Ser	Ser	Thr 520	Ala	Phe	Gly	Lys	Arg 525	Lys	Glu	Lys
Asp	Lys 530	Glu	Arg	Arg	Glu	Lys 535	Arg	Asp	Lys	Asp	His 540	Tyr	Arg	Pro	Lys
Gln 545	Lys	Lys	Lys	Lys	Lys 550	Lys	Lys	Lys	Lys	Ser 555	Lys	Gln	His	Asp	Туг 560
Ser	Asp	Tyr	Glu	Asp 565	Ser	Ser	Leu	Glu	Phe 570	Leu	Glu	Arg	Cys	Ser 575	Ser

PCT/US00/05988 1274

Pro Leu Thr Arg Ser Ser Gly Ser Ser Leu Ala Ser Arg Ser Met Phe 585

Thr Glu Lys Thr Thr Thr Tyr Gln Tyr Pro Arg Ala Ile Leu Ser Xaa 595 600 605

Asp Leu Ser Gly Glu Ser Met Cys Asn His Val Met Val Lys Thr Arg

Leu Thr Ile Pro Lys Cys Val Thr Glu Asn Lys Thr Tyr Ser Val Lys 630 635

Ser Met Arg Phe Lys 645

<210> 1454

<211> 69

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1454

Leu Val Ile Tyr Ser Trp His Xaa Phe Phe Ser Phe Gly Phe Ala Trp 5 10 15

Leu Phe Leu Gln Val Leu Ser Arg Tyr His Ser Ala Asn His Cys Tyr 25

Arg Met Val Thr Ser Phe Val Leu Thr Val Gln Gln Gln Ile Trp Val

Arg Leu Asn Leu Ser Val Asn Phe Phe Phe Trp Cys Phe Phe Gly Leu 50 55 60

Met Thr Val Ser Leu 65

<210> 1455

<211> 230

<212> PRT

<213> Homo sapiens

<	22	0>														
<	22	1> s	ITE													
<	22	2> (150)													
•	22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<	220	>														
		1> S														
		2> (
<	22:	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<	400)> 1	455													
I	eu 1	Ala	Gly	Pro	Arg 5		Trp	Arg	Val	Ser 10	Arg	Pro	Glu	Ala	Tyr 15	Arg
		_						_,					_		_	_
S	er	Arg	Trp	Arg 20	GIÀ	Arg	Ala	Gly	25	GIY	Phe	GIŸ	Leu	Arg 30	Arg	Arg
G	ııu	riec	35	Ala	GIY	GIY	ALG	Met 40		ASD	GIY	ser	45	Asp	116	THE
			33					40					4.5			
G	ln	Ser	Ile	Glu	Asp	Asp	Pro	Leu	Leu	Asp	Ala	Gln	Leu	Leu	Pro	His
		50					55			&		60				
		Ser	Leu	Gln	Ala		Phe	Arg	Pro	Arg		His	Pro	Leu	Pro	
	65					70					75					80
	- 1	T10	T10	Tro 1		T 0.4	T 011	mun	Dha	T10		T	170.1	Dho	1701	1701
٧	ат	116	116	vai	85 85	Leu	Dea	Trp	Pile	90	птв	Leu	val	PHE	95	val
					0.5					,,,					,,	
L	eu	Ala	Phe	Leu	Thr	Gly	Val	Leu	Cys	Ser	Tyr	Pro	Asn	Pro	Asn	Glu
				100					105					110		
A	sp	Lys		Pro	Gly	Asn	Tyr	Thr	Asn	Pro	Leu	Lys		Gln	Thr	Val
			115					120					125			
	1.	T10	Lou	Gl.v	T	17 - 1	T10	Leu	m	T10	T 011	u : -	T ou	T ou	T 011	Glu
_	16	130	Deu	GLY	Буз	vai	135	Leu	rrp	TIE	Deu	140	Dea	Deu	Deu	Giu
С	ys	Tyr	Ile	Gln	Tyr	Xaa	His	Xaa	Lys	Ile	Arg	Asn	Arg	Gly	Tyr	Asn
1	45					150					155					160
L	eu	Ile	Tyr	Arg		Thr	Arg	His	Leu		Arg	Leu	Ala	Leu		Ile
					165					170					175	
-	1	C 0 10	car	C1		mb	17-3	T	T 0	T 0	710	T 0	a	Mak	C1=	ui.
G	TU	ser	ser	180	ASD	rnr	val	Leu	185	neu	TTE	⊥eu	cys	190	GIN	115
				130					200					2,70		
s	er	Phe	Pro	Glu	Pro	Gly	Arg	Leu	Tyr	Leu	Asp	Leu	Ile	Leu	Ala	Ile
			195			-	-	200			-		205			

Leu Ala Leu Glu Leu Ile Cys Ser Leu Ile Cys Leu Leu Ile Tyr Thr

210 215 220

Val Lys Ile Pro Glu Ile 225 230

<210> 1456

<211> 71

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1456

Phe Phe Phe Phe Phe Ser Ile Ile Phe Xaa Gln Lys Gly Lys Lys Pro $1 \hspace{1cm} 1 \hspace{1cm} 5 \hspace{1cm} 15$

Phe Lys Ser Leu Arg Asn Leu Lys Ile Asp Leu Asp Leu Thr Ala Glu

Gly Asp Leu Asn Ile Ile Met Ala Leu Ala Glu Lys Ile Lys Pro Gly $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Leu His Ser Phe Ile Phe Gly Arg Pro Phe Tyr Thr Ser Val Gln Glu

Arg Asp Val Leu Met Thr Phe 65 70

<210> 1457 <211> 51

<211> 31

<213> Homo sapiens

-400- 14F7

Glu Tyr Asn Ser Val Asn Ala Asn Met Ile Ala Thr Leu Phe Thr Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Leu Leu Arg Pro Pro Pro Asn Leu Met Ala Arg Gln Thr Pro Ser \$20\$

Asp Arg Gln Arg Ala Ile Gln Phe Leu Leu Gly Phe Leu Leu Gly Ser 35 40 45

Glu Glu Asp

50

<210> 1458

<211> 260

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1458

Pro Arg Leu Xaa Gly Asp Phe Val Ile Arg Pro Pro Gly Ser Gly Glu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Lys Glu Pro His Pro Phe Ser Leu Cys His His Phe Gly His Pro Ala $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Leu Val Leu Gly Phe Ala Leu Thr Ser Arg Lys Asp Ala Asn Pro \$35\$ \$40\$ \$45\$

Ser Leu Thr Pro Ala Arg Ala Ala Thr Cys Leu Cys Arg Gly Asp Pro 50 55 60

Ser Leu Met Thr Leu Arg Cys Leu Glu Pro Ser Gly Asn Gly Glu Gb 65 70 75 80

Gly Thr Arg Xaa Gln Trp Gly Thr Ala Gly Ser Ala Glu Glu Pro Ser 85 90 95

Pro Gln Ala Ala Arg Leu Ala Lys Ala Leu Arg Glu Leu Gly Gln Thr 100 105 110

Gly Trp Tyr Trp Gly Ser Met Thr Val Asn Glu Ala Lys Glu Lys Leu 115 120 125

Lys Glu Ala Pro Glu Gly Thr Phe Leu Ile Arg Asp Ser Ser His Ser 130 \$135\$

Asp Tyr Leu Leu Thr Ile Ser Val Lys Thr Ser Ala Gly Pro Thr Asn 145 \$150\$

Leu Arg Ile Glu Tyr Gln Asp Gly Lys Phe Arg Leu Asp Ser Ile Ile

165 170 175

Cys Val Lys Ser Lys Leu Lys Gln Phe Asp Ser Val Val His Leu Ile 180 185 190

Asp Tyr Tyr Val Gln Met Cys Lys Asp Lys Arg Thr Gly Pro Glu Ala 195 200 205

Pro Arg Asn Gly Thr Val His Leu Tyr Leu Thr Lys Pro Leu Tyr Thr 210 215 220

Ser Ala Pro Ser Leu Gln His Leu Cys Arg Leu Thr Ile Asn Lys Cys 225 230 235 240

Thr Gly Ala Ile Trp Gly Leu Pro Leu Pro Thr Arg Leu Lys Asp Tyr 245 250 255

Leu Gly Arg Ile 260

<210> 1459

<211> 145

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1459

Ala Glu Arg Ser Thr Cys Ser Arg Ser Arg Xaa Ala Arg Ala Ala Ala 1 5 10 15

Pro Leu Pro Gly Gly Lys Gly Ser Gly Ile Phe Asp Glu Ser Thr Pro $20 \\ 25 \\ 30$

Val Gln Thr Arg Gln His Leu Asn Pro Pro Gly Gly Lys Thr Ser Asp 35 40 45

Ile Phe Gly Ser Pro Val Thr Ala Thr Ser Arg Leu Ala His Pro Asn $50 \ \ 55 \ \ 60$

Lys Pro Lys Asp His Val Phe Leu Cys Glu Glu Glu Glu Pro Lys Ser 65 70 75 80

Asp Leu Lys Ala Ala Arg Ser Ile Pro Ala Gly Ala Glu Pro Gly Glu 85 90 95

```
Lys Gly Ser Ala Arg Lys Ala Gly Pro Ala Lys Glu Gln Glu Pro Met
                                105
Pro Thr Val Asp Ser His Glu Pro Arg Leu Gly Pro Arg Pro Arg Ser
His Asn Lys Val Leu Asn Pro Pro Gly Gly Lys Ser Ser Ile Ser Phe
    130
                       135
                                           140
Tyr
145
<210> 1460
<211> 113
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1460
Pro Ser Ile Tyr Asp Ile Leu Leu Leu Ile Ile Leu Trp Leu Xaa Ser
                                     1.0
Arg Met Asp Val Glu Ser Cys Ser Gln Arg Glu Asp Arg Leu Lys Arg
                                25
Ala Xaa Ser Ala Lys Ser Ala Asn Ala Cys Asn Asn Cys Lys Cys Ser
         35
Val Ala Thr Cys Arg Leu Asn Ser Ala Gly Pro Glu Phe Cys Ile Arg
                         55
Gly Leu Gly Tyr Ser Pro Asp Lys Gly Trp Arg His Arg Met Leu Glu
                    70
                                        75
Phe Ser Gly His Ser Gly Lys Gly Pro Leu Cys Arg Ala Val Thr Val
                 85
```

Ser Cys Pro Ile Gly Pro Phe Pro Pro Val Lys Cys Lys Ser Gln Glu

105

100

Ser

<210> 1461

<211> 268

<212> PRT

<213> Homo sapiens

<400> 1461

Thr Thr Phe Arg Ala Lys Pro Gly Cys Cys Cys Ser Gly Gly Glu Asp 1 5 10 15

Arg Gly Thr Ala Met Ala Glu Ser Ser Glu Ser Phe Thr Met Ala Ser 20 25 30

Ser Pro Ala Gln Arg Arg Gly Asn Asp Pro Leu Thr Ser Ser Pro 35 40 45

Asp Leu Pro Pro Phe Glu Asp Glu Ser Glu Gly Leu Leu Gly Thr Glu 65 70 75 80

Gly Pro Leu Glu Glu Glu Glu Asp Gly Glu Glu Leu Ile Gly Asp Gly 85 90 95

Met Glu Arg Asp Tyr Arg Ala Ile Pro Glu Leu Asp Ala Tyr Glu Ala 100 105 110

Glu Gly Leu Ala Leu Asp Asp Glu Asp Val Glu Glu Leu Thr Ala Ser

Gln Arg Glu Ala Ala Glu Arg Ala Met Arg His Val Thr Gly Arg Leu 130 135 140

Ala Gly Ala Trp Ala Ala Cys Ala Val Gly Ser Cys Met Thr Ala Met 145 \$150\$

Arg Arg Thr arg Ser Ala Leu Pro Ala Ser Ala Ala Ser Gly Ala Ala 165 \$170\$

Thr Glu Asp Gly Glu Glu Asp Glu Glu Met Ile Glu Ser Ile Glu Asn 180 185 190

Leu Glu Asp Leu Lys Gly His Ser Val Arg Glu Trp Val Ser Met Ala 195 200205

Gly Pro Arg Leu Glu Ile His His Arg Phe Lys Asn Phe Leu Arg Thr

210 215 220

His Val Asp Ser His Gly His Asn Val Phe Lys Glu Arg Ile Ser Asp 225 230 235 240

Met Cys Lys Glu Asn Arg Glu Ser Leu Val Val Asn Tyr Glu Asp Thr 245 250 255

Gly Ser Gln Gly Ala Arg Ala Gly Leu Leu Pro Ala 260 265

<210> 1462

<211> 393 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (149)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1462

Lys Ile Arg Lys Gln Ile Asn Ile Asn Pro Phe Val Phe Lys His 1 $$\rm 5$$ 10 15

Ile Ser Asn Leu Lys Ser Met Asp His Phe Asp Asp Ile Gly Pro Ser $20 \hspace{1cm} 25 \hspace{1cm} 30$

Val Val Met Ala Ser Pro Gly Met Met Gln Ser Gly Leu Ser Arg Glu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Phe Glu Ser Trp Cys Thr Asp Lys Arg Asn Gly Val Ile Ile Ala $50 \hspace{1cm} 55 \hspace{1cm} 60$

Gly Tyr Cys Val Glu Gly Thr Leu Ala Lys His Ile Met Ser Glu Pro 65 70 75 80

Glu Glu Ile Thr Thr Met Ser Gly Gln Lys Leu Pro Leu Lys Met Ser 85 90 95

Val Asp Tyr Ile Ser Phe Ser Ala His Thr Asp Tyr Gln Gln Thr Ser

Glu Phe Ile Arg Ala Leu Lys Pro Pro His Val Ile Leu Val His Gly
115 120 125

Glu Gln Asn Glu Met Ala Arg Leu Lys Ala Ala Leu Ile Arg Glu Tyr
130 135 140

Glu 145	Asp	Asn	Asp	Xaa	Val 150	His	Ile	Glu	Val	His 155	Asn	Pro	Arg	Asn	Thr 160
Glu	Ala	Val	Thr	Leu 165	Asn	Phe	Arg	Gly	Glu 170	Lys	Leu	Ala	Lys	Val 175	Met
Gly	Phe	Leu	Ala 180	Asp	Lys	Lys	Pro	Glu 185	Gln	Gly	Gln	Arg	Val 190	Ser	Gly
		195		_	Asn		200	•				205		-	-
	210				Asp	215					220	-			
225					Gly 230					235					240
-			-	245	Val				250					255	
			260		Asn			265					270		
		275			Ala		280					285			
	290				Leu Val	295					300			-	
305					310 Met					315					320
	_			325	Ser			-	330		•		•	335	
		-	340		Glu			345					350	-	
		355			Leu		360				-	365		-	
	370				Thr	375					380				
385	-				390										

<211> 163 <212> PRT <213> Homo sapiens <400> 1463 Leu Leu Asp Phe Pro Ala Leu Pro Lys Phe Val Leu Ala Gln Ser Pro Lys Ala Gly Lys Pro Ser Thr Met Thr Ser Met Thr Gln Ser Leu Arg 20 25 Glu Val Ile Lys Ala Met Thr Lys Ala Arg Asn Phe Glu Arg Val Leu 35 40 Gly Lys Ile Thr Leu Val Ser Ala Ala Pro Gly Lys Val Ile Cys Glu Met Lys Val Glu Glu His Thr Asn Ala Ile Gly Thr Leu His Gly 70 75 Gly Leu Thr Ala Thr Leu Val Asp Asn Ile Ser Thr Met Ala Leu Leu Cys Thr Glu Arg Gly Ala Pro Gly Val Ser Val Asp Met Asn Ile Thr 100 105 Tyr Met Ser Pro Ala Lys Leu Gly Glu Asp Ile Val Ile Thr Ala His 120 Val Leu Lys Gln Gly Lys Thr Leu Ala Phe Thr Ser Val Asp Leu Thr 130 135 Asn Lys Ala Thr Gly Lys Leu Ile Ala Gln Gly Arg His Thr Lys His 150 155

Leu Gly Asn

<210> 1464

<211> 94

<212> PRT

<213> Homo sapiens

<400> 1464

Trp Cys Cys Phe Arg Thr Val Phe Ser Tyr Pro Phe Arg Leu Val Phe 1 5 10 15

Cys Met Arg His His Cys Lys Lys Ile Leu Ser Leu Gln Lys Tyr Phe

Ile Thr Lys Glu Gln Lys Gln Lys Lys Leu Lys Leu His Trp Leu Lys

4.0

<222> (22) <223> Xaa <220>

<221> SITE

35

<221> SITE <222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1465

Gln Val Glu Ile His Tyr Xaa Phe Asp Thr Leu Ile Glu Trp Trp Arg 1 5 10 15

Glu Lys Asn Gly Ser Xaa Cys Ser Xaa Leu Ile Ile Val Leu Asp Ser 20 25 30

Glu Asn Ser Thr Pro Trp Val Lys Glu Val Arg Lys Ile Asn Asp Gln 35 40 45

Tyr Ile Ala Val Gln Gly Ala Glu Leu Ile Lys Thr Val Asp Ile Glu 50 60

Glu Ala Asp Pro Pro Gln Leu Gly Asp Phe Thr Lys Asp Trp Val Glu 65 70 75 80 Tyr Asn Cys Asn Ser Ser Asn Asn Ile Cys Trp Thr Glu Lys Gly Arg 85 90 95

Thr Val Lys Ala Val Tyr Gly Val Ser Lys Arg Trp Ser Asp Tyr Thr \$100\$

Leu His Leu Pro Thr Gly Ser Asp Val Ala Lys His Trp Met Leu His 115 120 125

Phe Pro Arg Ile Thr Tyr Pro Leu Val His Leu Ala Asn Trp Leu Cys 130 \$135\$

Gly Leu Asn Leu Phe Trp Ile Cys Lys Thr Cys Phe Arg Cys Leu Lys 145 150 155 160

Arg Leu Lys Met Ser Trp Phe Leu Pro Thr Val Leu Asp Thr Gly Gln 165 170 175

Gly Phe Lys Leu Val Lys Ser 180

<210> 1466

<211> 146 <212> PRT

<213> Homo sapiens

<400> 1466

Arg Asp Gly Val Trp Ser Val Gln Val Arg Gly Gln Gly Glu Val Glu

1 5 10 15

Asn Gly Arg Cys Ile Thr Lys Leu Glu Asn Met Gly Phe Arg Val Gly
20 25 30

Gln Gly Leu Ile Glu Arg Phe Thr Lys Asp Thr Ala Arg Phe Lys Asp 35 40 45

Phe Lys Lys Gln Ile Asp Asn Leu Arg Thr Asn His Gln Gly Ile Tyr 65 70 75 80

Val Leu Gln Asp Asn Lys Phe Arg Leu Leu Thr Gln Met Ser Ala Gly 85 90 95

Lys Gln Tyr Leu Glu His Ala Ser Lys Tyr Leu Ala Phe Thr Cys Gly $100 \ \ 105 \ \ 110$

Leu Ile Arg Gly Gly Leu Ser Asn Leu Gly Ile Lys Ser Ile Val Thr

115 120 125

Ala Glu Val Ser Ser Met Pro Ala Cys Lys Phe Gln Val Met Ile Gln
130 135 140

Lys Leu 145

<210> 1467

<211> 277

<212> PRT <213> Homo sapiens

<400> 1467

Ile Arg His Ser His Thr Gly Gln Gly Ser Cys Trp Val Ala Thr Leu 1 5 10 15

Ala Ser Ala Met Ile Pro Pro Ala Asp Ser Leu Leu Lys Tyr Asp Thr 20 25 30

Pro Val Leu Val Ser Arg Asn Thr Glu Lys Arg Ser Pro Lys Ala Arg $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Leu Lys Val Ser Pro Gln Gln Pro Gly Pro Ser Gly Ser Ala Pro 50 60

Gln Pro Pro Lys Thr Lys Leu Pro Ser Thr Pro Cys Val Pro Asp Pro 65 70 75 80

Thr Lys Gln Ala Glu Glu Ile Leu Asn Ala Ile Leu Pro Pro Arg Glu 85 90 95

Trp Val Glu Asp Thr Gln Leu Trp Ile Gln Gln Val Ser Ser Thr Pro

Ser Thr Arg Met Asp Val Val His Leu Gln Glu Gln Leu Asp Leu Lys 115 120 125

Leu Gln Gln Arg Gln Ala Arg Glu Thr Gly Ile Cys Pro Val Arg Arg 130 135 140

Glu Leu Tyr Ser Gln Cys Phe Asp Glu Leu Ile Arg Glu Val Thr Ile 145 150 155 160

Asn Cys Ala Glu Arg Gly Leu Leu Leu Leu Arg Val Arg Asp Glu Ile 165 \$170\$

Arg Met Thr Ile Ala Ala Tyr Gln Thr Leu Tyr Glu Ser Ser Val Ala 180 185 190 Phe Gly Met Arg Lys Ala Leu Gln Ala Glu Gln Gly Lys Ser Asp Met 195 200 205

Glu Arg Lys Ile Ala Glu Leu Glu Thr Glu Lys Arg Asp Leu Glu Arg 210 215 220

Gln Val Asn Glu Gln Lys Ala Lys Cys Glu Ala Thr Glu Lys Arg Glu 225 230 235 240

Ser Glu Arg Arg Gln Val Glu Glu Lys Lys His Asn Glu Glu Ile Gln $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255$

Phe Leu Lys Arg Thr Asn Gln Gln Leu Lys Ala Gln Leu Glu Gly Ile 260 265 270

Ile Ala Pro Lys Lys 275

<210> 1468

<211> 263

<212> PRT

<213> Homo sapiens

<220> <221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1468

Arg Pro Ala Ala Ala Xaa Ser Gly Gly Thr Gly Ser Gly Arg Gly Ser

Arg Pro Glu Pro Ser Arg Ala Glu Pro Ser Arg Ser Gly Arg Arg Arg 20 25 30

Pro Ala Arg Arg Ala Ala Thr Met Ser Val Phe Gly Lys Leu Phe Gly \$35\$

Ala Gly Gly Gly Lys Ala Gly Lys Gly Gly Pro Thr Pro Gln Glu Ala
50 55 60

Ile Gln Arg Leu Arg Asp Thr Glu Glu Met Leu Ser Lys Lys Gln Glu 65 70 75 80

Phe Leu Glu Lys Lys Ile Glu Glu Glu Leu Thr Ala Ala Lys Lys His 85 90 95

Gly Thr Lys Asn Lys Arg Ala Ala Leu Gln Ala Leu Lys Arg Lys Lys

100 105 110 Arg Tyr Glu Lys Gln Leu Ala Gln Ile Asp Gly Thr Leu Ser Thr Ile Glu Phe Gln Arc Glu Ala Leu Glu Asn Ala Asn Thr Asn Thr Glu Val 135 Leu Lys Asn Met Gly Tyr Ala Ala Lys Ala Met Lys Ala Ala His Asp 145 150 Asn Met Asp Ile Asp Lys Val Asp Glu Leu Met Gln Asp Ile Ala Asp 165 170 Gln Gln Glu Leu Ala Glu Glu Ile Ser Thr Ala Ile Ser Lys Pro Val Gly Phe Gly Glu Glu Phe Asp Glu Asp Glu Leu Met Ala Glu Leu Glu 195 200 Glu Leu Glu Glu Glu Leu Asp Lys Asn Leu Leu Glu Ile Ser Gly 210 215 Pro Glu Thr Val Pro Leu Pro Asn Val Pro Ser Ile Ala Leu Pro Ser 225 230 235 Lys Pro Ala Lys Lys Glu Glu Glu Asp Asp Asp Met Lys Glu Leu Glu Asn Tro Ala Gly Ser Met 260 <210> 1469 <211> 192 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (101) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (118) <223> Xaa equals any of the naturally occurring L-amino acids

Phe Arg Pro Trp Thr Leu Asp Leu Val Asp Glu Gly His Trp Pro Gly

1 5 10 15

Pro Arg Val Phe Gly Gly Arg Arg Gly Leu Ala Trp Val Pro Thr Gly \$20\$

Cys Leu Thr Ser Ser Cys Ser Leu His Leu Gly Cys Val Gly Gln Gly 35 40 45

Leu Cys Cys His Ser Arg Asn Arg Phe Ser Ser Val Gly Leu Pro Phe 50 55 60

Leu His Pro Gly Leu Lys Trp Met Pro Asp Ala Asn Pro Ser Ser Gly 65 70 75 80

His Val Gln Pro Ala Gly Gln Pro Arg Gly Ser Leu Ser Ser Arg Ala 85 90 95

Lys Asp Ser Arg Xaa Pro Phe Ser Leu Leu Ala Phe Leu Leu Cys Pro 100 105 110

Ala Val Ala Ala Gly Xaa Ser Ser Cys Ser Arg Arg Glu Thr Val Leú 115 120 125

Pro Leu Ser Pro Ser Leu Pro His Pro Ser Ser Cys Pro Gly Asn Leu 130 135 140

Glu Pro Leu Gly Ala Glu Leu Asp Gly Gly Pro Ala Ala Ser Met Cys 145 \$150\$

Thr Lys Arg Ser Pro Phe Gln Gly Lys Arg Thr Gly Trp Arg Met Glu $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$

Gly Lys Pro Pro Arg Leu Arg Glu Leu Gln Glu Gly Thr Leu Pro Gly 180 185 190

<210> 1470

<211> 260

<212> PRT

<213> Homo sapiens

<400> 1470

Arg Lys Cys Leu Tyr Leu Val Ala Gly Lys Trp Glu Glu Arg Lys Val

Val Met Ala Ala Ile Ala Ala Ser Glu Val Leu Val Asp Ser Ala Glu
20 25 30

35 40 40 45

Gln Arg Leu Arg Lys Phe Arg Glu Leu His Leu Met Arg Asn Glu Ala
50 70 70 70 75 80

Leu Pro Ala Asn Trp Glu Ala Lys Lys Ala Arg Leu Glu Trp Glu Leu
85 90 100 110 110

Glu Lys Val Lys Leu Bel Glu Cys Ala Ala Arg Gly Glu Asp Tyr
115 125 Asn Pro Asp Leu Glu Arg Trp
115 125 Pro Asp Pro Asp Leu Gly Phe Ser Asp Tyr
130 135 Pro Asp Pro Asp Leu Gly Phe Ser Asp Tyr
130 135 Pro Asp Leu Gly Phe Ser Asp Tyr
130 140

Glu Gly Ser Leu Ala Ala Ala Ala Glu Leu Ala Ala Gln Lys Ard Glu

Pro Asp Met Glu Thr Tyr Glu Arg Leu Arg Glu Lys His Gly Glu Glu 165 170 175

Ala Ala Ala Gln Leu Arg Gln Tyr His Arg Leu Thr Lys Gln Ile Lys

155

160

150

Phe Phe Pro Thr Ser Asn Ser Leu Leu His Gly Thr His Val Pro Ser 180 185 190

Thr Glu Glu Ile Asp Arg Met Val Ile Asp Leu Glu Lys Gln Ile Glu 195 200 205

Lys Arg Asp Lys Tyr Ser Arg Arg Arg Pro Tyr Asn Asp Asp Ala Asp 210 215 220

Ile Asp Tyr Ile Asn Glu Arg Asn Ala Lys Phe Asn Lys Lys Ala Glu 225 230 235 240

Arg Phe Tyr Gly Lys Tyr Thr Ala Glu Ile Lys Gln Asn Leu Glu Arg 245 250 255

Gly Thr Ala Val

<210> 1471 <211> 121

145

<211> 121 <212> PRT <213> Homo sapiens

<400> 1471

Leu Val Lys Gly Met Thr Val Leu Glu Ala Val Leu Glu Ile Gln Ala 1 5 10 15

Ile Thr Gly Ser Arg Leu Leu Ser Met Val Pro Gly Pro Ala Arg Pro 20 25 30

Pro Gly Ser Cys Trp Asp Pro Thr Gln Cys Thr Arg Thr Trp Leu Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Ser His Thr Pro Arg Arg Arg Trp Ile Ser Gly Leu Pro Arg Ala Ser 50 55 60

Cys Arg Leu Gly Glu Glu Pro Pro Pro Leu Pro Tyr Cys Asp Gln Ala 65 70 75 80

Tyr Gly Glu Glu Leu Ser Ile Arg His Arg Glu Thr Trp Ala Trp Leu 85 90 95

Ser Arg Thr Asp Thr Ala Trp Pro Gly Ala Pro Gly Val Lys Gln Ala

Arg Ile Leu Gly Glu Leu Leu Val

<210> 1472

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (89)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1472

Pro Cys Ala Trp Arg Ala Ala Arg Gly Gly Pro Cys Ala Ala Pro Leu

				,					10					13	
Gly	Leu	Arg	Glu 20	Arg	Gly	Arg	Val	Ser 25	Xaa	Arg	Leu	Leu	Gly 30	Pro	Ala
Ala	Ala	Arg 35	Ala	Leu	Leu	Leu	Gly 40	Leu	Pro	Gly	Arg	Thr 45	Leu	Glu	Ala
Ala	Ser 50	Gly	Arg	Ser	Trp	Leu 55	Ala	Ala	Ala	Arg	Asp 60	Arg	Pro	Ala	Glu
Pro 65	Leu	Phe	Gly	Arg	Gly 70	Glu	Gly	Gly	Ser	Gln 75	Ala	Ser	Gly	Хаа	Ala 80
Gly	Ala	Ala	Ala	Glu 85	Ala	Pro	Gly	Xaa	Gln 90	Trp	Gly	Pro	Ala	Ser 95	Thr
Pro	Ser	Leu	Tyr 100	Glu	Asn	Pro	Trp	Thr 105	Ile	Pro	Asn	Met	Leu 110	Ser	Met
	-	115			Ala		120					125			
Asp	Phe 130	Asn	Ile	Ala	Leu	Gly 135	Val	Phe	Ala	Leu	Ala 140	Gly	Leu	Thr	Asp
Leu 145	Leu	Asp	Gly	Phe	Ile 150	Ala	Arg	Asn	Trp	Ala 155	Asn	Gln	Arg	Ser	Ala 160
				165	Asp				170					175	
	-		180		Thr			185					190		
-		195			Arg	-	200					205			
	210				Leu	215					220				
225					Thr 230					235					240
				245	Gln				250					255	
Pro	Val	Phe	Asn 260	Tyr	Ala	Asp	Ser	11e 265	Tyr	Leu	Gln	Ile	Leu 270	Trp	Cys
Phe	Thr	Ala	Phe	Thr	Thr	Ala	Ala	Ser	Ala	Tvr	Ser	Tyr	Tyr	His	Tyr

275 280 285

Gly Arg Lys Thr Val Gln Val Ile Lys Asp 290 295

<210> 1473

<211> 526

<212> PRT

<213> Homo sapiens

<400> 1473

Val Ala Leu Gly Ala Ala Met Ser Ala Gly Glu Val Glu Arg Leu Val

Ser Glu Leu Ser Gly Gly Thr Gly Gly Asp Glu Glu Glu Glu Trp Leu 20 25 30

Tyr Gly Asp Glu Asn Glu Val Glu Arg Pro Glu Glu Glu Asn Ala Ser $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ala Asn Pro Pro Ser Gly Ile Glu Asp Glu Thr Ala Glu Asn Gly Val 50 55 60

Pro Lys Pro Lys Val Thr Glu Thr Glu Asp Asp Ser Asp Ser Asp Ser 65 70 75 80

Asp Asp Asp Glu Asp Asp Val His Val Thr Ile Gly Asp Ile Lys Thr $85 \\ 90 \\ 95$

Gly Ala Pro Gln Tyr Gly Ser Tyr Gly Thr Ala Pro Val Asn Leu Asn 100 105 110

Ile Lys Thr Gly Gly Arg Val Tyr Gly Thr Thr Gly Thr Lys Val Lys 115 120 125

Gly Val Asp Leu Asp Ala Pro Gly Ser Ile Asn Gly Val Pro Leu Leu 130 135 140

Glu Val Asp Leu Asp Ser Phe Glu Asp Lys Pro Trp Arg Lys Pro Gly 145 150 150 155

Ala Asp Leu Ser Asp Tyr Phe Asn Tyr Gly Phe Asn Glu Asp Thr Trp \$165\$

Lys Ala Tyr Cys Glu Lys Gln Lys Arg Ile Arg Met Gly Leu Glu Val 180 185 190

Ile Pro Val Thr Ser Thr Thr Asn Lys Ile Thr Val Gln Gln Gly Arg 195 200 205

Thr	Gly 210	Asn	Ser	Glu	Lys	Glu 215	Thr	Ala	Leu	Pro	Ser 220	Thr	Lys	Ala	Glu
Phe 225	Thr	Ser	Pro	Pro	Ser 230	Leu	Phe	Lys	Thr	Gly 235	Leu	Pro	Pro	Ser	Arg 240
Arg	Leu	Pro	Gly	Ala 245	Ile	Asp	Val	Ile	Gly 250	Gln	Thr	Ile	Thr	11e 255	Ser
Arg	Val	Glu	Gly 260	Arg	Arg	Arg	Ala	Asn 265	Glu	Asn	Ser	Asn	11e 270	Gln	Val
Leu	Ser	Glu 275	Arg	Ser	Ala	Thr	Glu 280	Val	Asp	Asn	Asn	Phe 285	Ser	Lys	Pro
Pro	Pro 290	Phe	Phe	Pro	Pro	Gly 295	Ala	Pro	Pro	Thr	His 300	Leu	Pro	Pro	Pro
Pro 305	Phe	Leu	Pro	Pro	Pro 310	Pro	Thr	Val	Ser	Thr 315	Ala	Pro	Pro	Leu	11e 320
Pro	Pro	Pro	Gly	Phe 325	Pro	Pro	Pro	Pro	Gly 330	Ala	Pro	Pro	Pro	Ser 335	Leu
Ile	Pro	Thr	11e 340	Glu	Ser	Gly	His	Ser 345	Ser	Gly	Tyr	Asp	Ser 350	Arg	Ser
Ala	Arg	Ala 355	Phe	Pro	Tyr	Gly	Asn 360	Val	Ala	Phe	Pro	His 365	Leu	Pro	Gly
Ser	Ala 370	Pro	Ser	Trp	Pro	Ser 375	Leu	Val	Asp	Thr	Ser 380	Lys	Gln	Trp	Asp
туг 385	Tyr	Ala	Arg	Arg	Glu 390	Lys	Asp	Arg	Asp	Arg 395	Glu	Arg	Asp	Arg	Asp 400
Arg	Glu	Arg	Asp	Arg 405	Asp	Arg	Asp	Arg	Glu 410	Arg	Glu	Arg	Thr	Arg 415	Glu
Arg	Glu	Arg	Glu 420	Arg	Asp	His	Ser	Pro 425	Thr	Pro	Ser	Val	Phe 430	Asn	Ser
Asp	Glu	Glu 435	Arg	Tyr	Arg	Tyr	Arg 440	Glu	Tyr	Ala	Glu	Arg 445	Gly	Tyr	Glu
Arg	His 450	Arg	Ala	Ser	Arg	Glu 455	Lys	Glu	Glu	Arg	His 460	Arg	Glu	Arg	Arg
His 465	Arg	Glu	Lys	Glu	G1u 470	Thr	Arg	His	Lys	Ser 475	Ser	Arg	Ser	Asn	Ser 480

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Arg Arg Arg His Glu Ser Glu Glu Gly Asp Ser His Arg Arg His Lys
                485
                                    490
His Lys Lys Ser Lys Arg Ser Lys Glu Gly Lys Glu Ala Gly Ser Glu
            500
                                505
Pro Ala Pro Glu Gln Glu Ser Thr Glu Ala Thr Pro Ala Glu
        515
                            520
                                                525
<210> 1474
<211> 70
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1474
Ile Met Val Arg Pro Gly Xaa Thr Leu Arg Leu Asp Lys Lys Met Leu
Leu Lys Arg Ser Ser Phe Lys Arg Ser Cys Ser Cys Val Lys Lys Leu
                                25
Gln Val Trp Phe Val Leu Val Cys Asp His Glu Cys Thr Met Lys Lys
         35
                             40
Thr Leu Asp Ala Ala Phe Phe Ser Ser Glu Asp Ser Leu Gly Ile Pro
     50
                         55
Glu Asp Ser Ser Leu Arg
<210> 1475
<211> 345
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<221> SITE
<222> (54)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (129)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (159)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (166)
<223> Xaa equals any of the naturally occurring L-amino acids
Lvs Lvs Val Val Ser Tvr Phe Phe Arg Trp Gln Ser Leu Leu Ile Met
                                     10
Ile Met Met Phe Lys Ile Pro Pro Ser Asp Gly Leu Leu Ile Leu Pro
             20
                                 25
Cys Tyr Gly Ser Met Thr Thr Asp Gln Gln Arg Xaa Ile Phe Leu Pro
                            40
Pro Pro Pro Gly Ile Xaa Lys Cys Val Ile Ser Thr Asn Ile Ser Ala
     50
                        55
Thr Ser Leu Thr Ile Asp Glv Ile Arg Tvr Val Val Asp Glv Glv Phe
Val Lys Gln Leu Asn His Asn Pro Arg Leu Gly Leu Asp Ile Leu Glu
Val Val Pro Ile Ser Lys Ser Glu Ala Leu Gln Arg Ser Gly Arg Ala
            100
                                105
                                                    110
Gly Arg Thr Ser Ser Gly Lys Cys Phe Arg Ile Tyr Ser Lys Asp Phe
        115
                            120
Xaa Asn Gln Cys Met Pro Asp His Val Ile Pro Glu Ile Lys Arg Thr
                        135
Ser Leu Thr Ser Val Val Leu Thr Leu Lys Cys Leu Ala Ile Xaa Asp
145
                   150
                                        155
                                                            160
```

Val Ile Arg Phe Pro Xaa Leu Asp Pro Pro Asn Glu Arg Leu Ile Leu

165 170 175 Glu Ala Leu Lys Gln Leu Tyr Gln Cys Asp Ala Ile Asp Arg Ser Gly 185 His Val Thr Arg Leu Gly Leu Ser Met Val Glu Phe Pro Leu Pro Pro 200 His Leu Thr Cvs Ala Val Ile Lvs Ala Ala Ser Leu Asp Cvs Glu Asp 215 Leu Leu Leu Pro Ile Ala Ala Met Leu Ser Val Glu Asn Val Phe Ile 225 230 235 Arg Pro Val Asp Pro Glu Tyr Gln Lys Glu Ala Glu Gln Arg His Arg 250 Glu Leu Ala Ala Lys Ala Gly Gly Phe Asn Asp Phe Ala Thr Leu Ala 265 Val Ile Phe Glu Gln Cys Lys Ser Ser Gly Ala Pro Ala Ser Trp Cys Gln Lys His Trp Ile His Trp Arg Cys Leu Phe Ser Ala Phe Arg Val 295 300 Glu Ala Gln Leu Arg Glu Leu Ile Arg Lys Leu Lys Gln Gln Ser Asp

315

335

330

325

Val Phe Val Arg Ala Ile Ser Lys Met
340
345

<210> 1476

<211> 195

<212> PRT

<213> Homo sapiens

<400> 1476

Tyr Leu Leu Phe Val Lys Asn Met Ser Ser Leu Glu Ile Ser Ser Ser 1 5 10 15

Ser Gln Lys Arg Pro Leu Lys Ala Leu Asn Met Lys Tyr Tyr Glu Asp

Cys Phe Ser Leu Glu Thr Lys Leu Pro Leu Ser Pro Pro Leu Val Glu 20 25 30

Asp Ser Ala Phe Glu Pro Ser Arg Lys Asp Met Asp Glu Val Glu Glu 35 40 45

Lys Ser Lys Asp Val Ile Asn Phe Thr Ala Glu Lys Leu Ser Val Asp 50 Glu Val Ser Gln Leu Val Ile Ser Pro Leu Cys Gly Ala Ile Ser Leu 70 Phe Val Gly Thr Thr Arg Asn Asn Phe Glu Gly Lys Lys Val Ile Ser Leu Glu Tyr Glu Ala Tyr Leu Pro Met Ala Glu Asn Glu Val Arg Lys 105 Ile Cys Ser Asp Ile Arg Gln Lys Trp Pro Val Lys His Ile Ala Val 115 120 Phe His Arg Leu Gly Leu Val Pro Val Ser Glu Ala Ser Ile Ile Ile 135 Ala Val Ser Ser Ala His Arg Ala Ala Ser Leu Glu Ala Val Ser Tyr 150 155 Ala Ile Asp Thr Leu Lys Ala Lys Val Pro Ile Trp Lys Lys Glu Ile 165 170 175 Tyr Glu Glu Ser Ser Thr Trp Lys Gly Asn Lys Glu Cys Phe Trp Ala 185 Ser Asn Ser 195 <210> 1477 <211> 387 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (35) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (370)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (374)

<22	3> X	aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
<22)>														
<22	1> s	TTE													
		378)													
		/						ural							۰.
~22.	3 - X	aa e	quai	s an	y or	tne	nat	urai	TÀ O	ccur	ring	L-a	mino	acı	15
<22)>														
<22	1> S	ITE													
<22	2> (379)													
<22	3> X	aa e	qual:	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	acio	is
<401)> 1	477													
			n		n	o1-	mb.		T	P.L.			mb -		D=0
	ser	GLU	Asp	ASI 5	PIO	GIN	THE	Leu		Pne	ser	Ala	THE	15	PLO
1				2					10					15	
Gln	Trp	Val		Lys	Val	Ala	Lys	Lys	Tyr	Met	Lys	Ser		Tyr	Glu
			20					25					30		
Gln	Val	Xaa	Leu	Val	Gly	Lys	Met	Thr	Gln	Lys	Ala	Ala	Thr	Thr	Val
		35			•	•	40			•		45			
c1	uio	T 011		T10	C1 n	Cura	ni a		car	Cla		Dro	21-	77-1	T10
GIU		Leu	ATG	TTE	GIN		HIS	Trp	ser	GIN		Pro	MIA	Val	rie
	50					55					60				
Gly	Asp	Val	Leu	Gln	Val	Tyr	Ser	Gly	Ser	Glu	Gly	Arg	Ala	Ile	Ile
65					70					75					80
Dhe	Cvs	Glu	Thr	Lve	Luce	Acn	Val	Thr	Glu	Met	Δla	Met	Asn	Pro	His
	-,-			85	-,-	******			90					95	
				0.5					,,,						
			_											_	
Ile	Lys	GIn		Ala	Gln	Cys	Leu	His	Gly	Asp	Ile	Ala		Ser	GIn
			100					105					110		
Arg	Glu	Ile	Thr	Leu	Lys	Gly	Phe	Arg	Glu	Gly	Ser	Phe	Lys	Val	Leu
		115					120					125			
Va l	Ala	Thr	Asn	Val	Ala	Ala	Ara	Gly	T.e.II	Asp	Tle	Pro	Glu	Val	Asp
	130			• • • •	*****	135	9	O-y	Dea	,,,op	140	110		***	1100
	130					133					140				
				_	_		_		_			_	_		
	Val	IIe	GIn	ser		Pro	Pro	Gln	Asp		GIu	ser	Tyr	IIe	
145					150					155					160
Arq	Ser	Gly	Arq	Thr	Glv	Arq	Ala	Gly	Arq	Thr	Glv	Ile	Cys	Ile	Cys
		•		165	•			•	170		-		•	175	•
				100											
Dhe	m	C1r	Day		G1.	T. m.c.	C11-	C1.	T	7 ===	m	110?	C11.	C1 =	T
rne	ryr	GIU		wid	GIU	wid	GTÀ	Gln	ren	Arg	ryr	vai		GTU	тув
			180					185					190		
Ala	Gly		Thr	Phe	Lys	Arg		Gly	Val	Pro	Ser		Met	Asp	Leu
		195					200					205			

Val Lys Ser Lys Ser Met Asp Ala Ile Arg Ser Leu Ala Ser Val Ser 210 215 220

Tyr Ala Ala Val Asp Phe Phe arg Pro Ser Ala Gln arg Leu Ile Glu 225 230 235 240

Glu Lys Gly Ala Val Asp Ala Leu Ala Ala Leu Ala His Ile Ser 245 250 255

Gly Ala Ser Ser Phe Glu Pro Arg Ser Leu Ile Thr Ser Asp Lys Gly \$260\$

Phe Val Thr Met Thr Leu Glu Ser Leu Glu Glu Ile Gln Asp Val Ser 275 280 285

Cys Ala Trp Lys Glu Leu Asn Arg Lys Leu Ser Ser Asn Ala Val Ser 290 295 300

Gln Ile Thr Arg Met Cys Leu Leu Lys Gly Asn Met Gly Val Cys Phe 305 \$310\$ 315 320

Asp Val Pro Thr Thr Glu Ser Glu Arg Leu Gln Ala Glu Trp His Asp 325 330 335

Ser Asp Trp Ile Leu Ser Val Pro Ala Lys Leu Pro Glu Ile Glu Glu 340 345 350

Tyr Tyr Asp Gly Asn Thr Ser Ser Asn Ser Arg Gln Arg Ser Gly Trp 355 360 365

Ser Xaa Gly Arg Ser Xaa Arg Ser Ala Xaa Xaa Gly Gly Arg Ser Gly 370 375 380

Gly Gly Gln 385

<210> 1478

<211> 55

<212> PRT

<213> Homo sapiens

<400> 1478

Thr Gly Ala Cys His His Ala Gln Leu Asn Phe Val Phe Leu Val Glu 1 5 10 15

Thr Gly Phe His His Val Gly Gln Asp Gly Leu Asn Leu Leu Thr Leu 20 25 30

Arg Ser Ala His Leu Ser Leu Pro Lys Cys Trp Asp Tyr Arg Arg Asn 40 Thr Arg Ala Trp Pro Val Leu 50 <210> 1479 <211> 559 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (555) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1479 Ala Arg Ala Asp Gly Arg Asp Gly Arg Gly Gly Arg Arg Ala Pro Trp Arg Ala Leu Thr Ser Ala Ser Pro Arg Ala Ala Leu Pro Gln Ala Gln 20 25 Cys Pro Glu Leu Gly Ala Ser Pro Ala Arg Gly Thr Leu Leu Ala Lys 40 Glu Val Val Ser Pro Val Leu Ser Ser Arg Pro Gly Gly Pro Lys Leu Pro Asp Asp Glu Glu Pro Pro Asn Met Ala Ser Glu Ser Gly Lys Leu 75 Trp Gly Gly Arg Phe Val Gly Ala Val Asp Pro Ile Met Glu Lys Phe Asn Ala Ser Ile Ala Tyr Asp Arq His Leu Trp Glu Val Asp Val Gln 105 Gly Ser Lys Ala Tyr Ser Arg Gly Leu Glu Lys Ala Gly Leu Leu Thr 120 Lys Ala Glu Met Asp Gln Ile Leu His Gly Leu Asp Lys Val Ala Glu 130 135 Glu Trp Ala Gln Gly Thr Phe Lys Leu Asn Ser Asn Asp Glu Asp Ile 145 150 155 His Thr Ala Asn Glu Arg Arg Leu Lys Glu Leu Ile Gly Ala Thr Ala

170

165

Gly	Lys	Leu	His 180	Thr	Gly	Arg	Ser	Arg 185	Asn	Asp	Gln	Val	Val 190	Thr	Asp
Leu	Arg	Leu 195	Trp	Met	Arg	Gln	Thr 200	Суз	Ser	Thr	Leu	Ser 205	Gly	Leu	Leu
Trp	Glu 210	Leu	Ile	Arg	Thr	Met 215	Val	Asp	Arg	Ala	Glu 220	Ala	Glu	Arg	Asp
Val 225	Leu	Phe	Pro	Gly	Tyr 230	Thr	His	Leu	Gln	Arg 235	Ala	Gln	Pro	Ile	Arg 240
Trp	Ser	His	Trp	Ile 245	Leu	Ser	His	Ala	Val 250	Ala	Leu	Thr	Arg	Asp 255	Ser
Glu	Arg	Leu	Leu 260	Glu	Val	Arg	Lys	Arg 265	Ile	Asn	Val	Leu	Pro 270	Leu	Gly
Ser	Gly	Ala 275	Ile	Ala	Gly	Asn	Pro 280	Leu	Gly	Val	Asp	Arg 285	Glu	Leu	Leu
Arg	Ala 290	Glu	Leu	Asn	Phe	Gly 295	Ala	Ile	Thr	Leu	Asn 300	Ser	Met	Asp	Ala
Thr 305	Ser	Glu	Arg	Asp	Phe 310	Val	Ala	Glu	Phe	Leu 315	Phe	Trp	Ala	Ser	Leu 320
Cys	Met	Thr	His	Leu 325	Ser	Arg	Met	Ala	Glu 330	Asp	Leu	Ile	Leu	Tyr 335	Cys
Thr	Lys	Glu	Phe 340	Ser	Phe	Val	Gln	Leu 345	Ser	Asp	Ala	Tyr	Ser 350	Thr	Gly
Ser	Ser	Leu 355	Met	Pro	Gln	Lys	Lys 360	Asn	Pro	Asp	Ser	Leu 365	Glu	Leu	Ile
Arg	Ser 370	Lys	Ala	Gly	Arg	Val 375	Phe	Gly	Arg	Cys	Ala 380	Gly	Leu	Leu	Met
Thr 385	Leu	Lys	Gly	Leu	Pro 390	Ser	Thr	Tyr	Asn	Lys 395	Asp	Leu	Gln	Glu	Asp 400
Lys	Glu	Ala	Val	Phe 405	Glu	Val	Ser	Asp	Thr 410	Met	Ser	Ala	Val	Leu 415	Gln
Val	Ala	Thr	Gly 420	Val	Ile	Ser	Thr	Leu 425	Gln	Ile	His	Gln	Glu 430	Asn	Met
Gly	Gln	Ala 435	Leu	Ser	Pro	Asp	Met 440	Leu	Ala	Thr	qsA	Leu 445	Ala	Tyr	Tyr

Leu Val Arg Lys Gly Met Pro Phe Arg Gln Ala His Glu Ala Ser Gly
450 455 460

Lys Ala Val Phe Met Ala Glu Thr Lys Gly Val Ala Leu Asn Gln Leu 465 470 475 480

Ser Leu Gln Glu Leu Gln Thr Ile Ser Pro Leu Phe Ser Gly Asp Val 485 490 495

Ile Cys Val Trp Asp Tyr Gly His Ser Val Glu Gln Tyr Gly Ala Leu $500 \hspace{1cm} 505 \hspace{1cm} 510$

Gly Ala Leu Arg Ala Pro Ala Ser Thr Gly Arg Ser Ala Arg Cys Gly 515 520 525

Arg Tyr Cys Arg His Ser Arg Pro Arg Ser Ser His Thr Cys Pro Leu 530 535 540

Ile Lys Trp Ala Arg Glu Glu Lys Lys Lys Xaa Lys Lys Lys Phe 545 550 555

<210> 1480

<211> 200

<212> PRT

<213> Homo sapiens

<400> 1480

Ser Leu Gly Glu Leu Pro Thr Asp Pro Ser Ser Asp Glu Pro Val Phe 1 $$ 5 $$ 10 $$ 15

His Ile Ser His Ile Asp Arg Val Tyr Thr Leu Arg Thr Asp Asn Ile 20 25 30

Asn Glu Arg Thr Thr Trp Val Gln Lys Ile Lys Ala Ala Ser Glu Gln 35 40 45

Tyr Ile Asp Thr Glu Lys Lys Lys Arg Glu Lys Ala Tyr Gln Ala Arg 50 55 60

Ser Gln Lys Thr Ser Gly Ile Gly Arg Leu Met Val His Val Ile Glu 65 70 75 80

Ala Thr Glu Leu Lys Ala Cys Lys Pro Asn Gly Lys Ser Asn Pro Tyr $85 \hspace{1cm} 90 \hspace{1cm} 95$

Cys Glu Ile Ser Met Gly Ser Gln Ser Tyr Thr Thr Arg Thr Ile Gln $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

Asp Thr Leu Asn Pro Lys Trp Asn Phe Asn Cys Gln Phe Phe Ile Lys 115 120 125

Asp Leu Tyr Gln Asp Val Leu Cys Leu Thr Leu Phe Asp Arg Asp Gln 130 135 140

Phe Ser Pro Asp Asp Phe Leu Gly Arg Thr Glu Ile Pro Val Ala Lys 145 150 155 160

Ile Arg Thr Glu Glu Ser Lys Gly Pro Met Thr Arg Arg Leu Leu 165 170 175

Leu His Glu Val Pro Thr Gly Glu Val Trp Val Arg Phe Asp Leu Gln \$180\$

Leu Phe Glu Gln Lys Thr Leu Leu 195 200

<210> 1481

<211> 109

<212> PRT <213> Homo sapiens

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1481

Gln Leu Leu Leu Leu Pro Pro Lys Ala Pro Arg Asn Pro Phe Leu Pro 1 5 10 15

Cys Pro Gly Ser Arg Thr Pro Gly Tyr Ile Trp Lys Val Glu Met Trp 20 25 30

Gly Ser Cys Xaa Leu Glu Tyr Tyr Val Ser Pro Pro Ser Ala Val Phe $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Glu His Val Cys Cys Pro Trp Trp Glu Arg Gly His Cys Ala Val 50 60

Val His Arg Cys Leu Ser Phe Thr Val Gly Leu Ser Val Cys Leu Ser 65 70 75 80

Phe Leu Ser Ala Ala Gln Met Glu Asn Asn Tyr Leu Leu His Trp Arg 85 90 95

Glu Arg Lys Ser Leu Arg Ile Pro Lys Gly Thr Leu Ala 100 105

<210> 1482 <211> 205 <212> PRT <213> Homo sapiens <400> 1482 Asp Pro Arg Val Arg Ala Ala Arg Thr Ala Phe Gly Ala Val Cys Arg Arg Leu Trp Gln Gly Leu Gly Asn Phe Ser Val Asn Thr Ser Lys Gly 25 Asn Thr Ala Lys Asn Gly Gly Leu Leu Leu Ser Thr Asn Met Lys Trp 35 40 Val Gln Phe Ser Asn Leu His Val Asp Val Pro Lys Asp Leu Thr Lys Pro Val Val Thr Ile Ser Asp Glu Pro Asp Ile Leu Tyr Lys Arg Leu Ser Val Leu Val Lys Gly His Asp Lys Ala Val Leu Asp Ser Tyr Glu Tyr Phe Ala Val Leu Ala Ala Lys Glu Leu Gly Ile Ser Ile Lys Val 100 His Glu Pro Pro Arg Lys Ile Glu Arg Phe Thr Leu Leu Gln Ser Val 120 His Ile Tyr Lys Lys His Arg Val Gln Tyr Glu Met Arg Thr Leu Tyr 135 Arg Cys Leu Glu Leu Glu His Leu Thr Gly Ser Thr Ala Asp Val Tyr 145 150 Leu Glu Tyr Ile Gln Arg Asn Leu Pro Glu Gly Val Ala Met Glu Val 165 170 Thr Lys Thr Gln Leu Glu Gln Leu Pro Glu His Ile Lys Glu Pro Ile 185 Trp Glu Thr Leu Ser Glu Glu Lys Glu Glu Ser Lys Ser 195 200

<211> 370													
<212> PRT <213> Homo sapiens													
<400> 1483 Gly Gln Ile Lys Asp Glu Thr Leu Gln Ala Ala Val Arg Glu Ile Leu													
1 5 10 15													
Ala Leu Ile Gly Tyr Val Asp Pro Val Lys Gly Arg Gly Ile Arg Ile 20 25 30													
Leu Ser Ile Asp Gly Gly Gly Thr Arg Gly Val Val Ala Leu Gln Thr 35 40 45													
Leu Arg Lys Leu Val Glu Leu Thr Gln Lys Pro Val His Gln Leu Phe 50 55 60													
50 55 60													
Asp Tyr Ile Cys Gly Val Ser Thr Gly Ala Ile Leu Ala Phe Met Leu 65 70 75 80													
65 /0 /5 80													
Gly Leu Phe His Met Pro Leu Asp Glu Cys Glu Glu Leu Tyr Arg Lys													
85 90 95													
Leu Gly Ser Asp Val Phe Ser Gln Asn Val Ile Val Gly Thr Val Lys													
100 105 110													
Met Ser Trp Ser His Ala Phe Tyr Asp Ser Gln Thr Trp Glu Asn Ile													
115 120 125													
Leu Lys Asp Arg Met Gly Ser Ala Leu Met Ile Glu Thr Ala Arg Asn													
130 135 140													
Pro Thr Cys Pro Lys Val Ala Ala Val Ser Thr Ile Val Asn Arg Gly													
145 150 155 160													
Ile Thr Pro Lys Ala Phe Val Phe Arg Asn Tyr Gly His Phe Pro Gly													
165 170 175													
Ile Asn Ser His Tyr Leu Gly Gly Cys Gln Tyr Lys Met Trp Gln Ala													
180 185 190 190													
7]													
Ile Arg Ala Ser Ser Ala Ala Pro Gly Tyr Phe Ala Glu Tyr Ala Leu 195 200 205													
Gly Asn Asp Leu His Gln Asp Gly Gly Leu Leu Leu Asn Asn Pro Ser 210 215 220													
Ala Leu Ala Met His Glu Cys Lys Cys Leu Trp Pro Asp Val Pro Leu													

Glu Cys Ile Val Ser Leu Gly Thr Gly Arg Tyr Glu Ser Asp Val Arg

245 250 255

Asn Thr Val Thr Tyr Thr Ser Leu Lys Thr Lys Leu Ser Asn Val Ile 260 265 270

Asn Ser Ala Thr Asp Thr Glu Glu Val His Ile Met Leu Asp Gly Leu \$275\$ \$280\$

Leu Pro Pro Asp Thr Tyr Phe Arg Phe Asn Pro Val Met Cys Glu Asn 290 295 300

Ile Pro Leu Asp Glu Ser Arg Asn Glu Lys Leu Asp Gln Leu Gln Leu 305 310 315 320

Glu Gly Leu Lys Tyr Ile Glu Arg Asn Glu Gln Lys Met Lys Lys Val

Ala Lys Ile Leu Ser Gln Glu Lys Thr Thr Leu Gln Lys Ile Asn Asp $340 \hspace{1.5cm} 345 \hspace{1.5cm} 350$

Trp Ile Lys Leu Lys Thr Asp Met Tyr Glu Gly Leu Pro Phe Phe Ser 355 360 365

Lys Leu 370

<210> 1484 <211> 149

<212> PRT

<212> PRI

<213> Homo sapiens

<400> 1484

Asp Ser Thr Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Asn Ser $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Val Leu Thr Ile Asn Ala Thr Met Pro Glu Pro Thr Lys Ser Ala Pro 20 25 30

Ala Pro Lys Lys Gly Ser Lys Lys Ala Val Thr Lys Ala Gln Lys Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Asp Gly Lys Lys Arg Lys Arg Ser Arg Lys Glu Ser Tyr Ser Val Tyr 50 55 60

Val Tyr Lys Val Leu Lys Gln Val His Pro Asp Thr Gly Ile Ser Ser 65 70 75 80

Lys Ala Met Gly Ile Met Asn Ser Phe Val Asn Asp Ile Phe Glu Arg $85 \hspace{1cm} 90 \hspace{1cm} 95$

Ile Ala Gly Glu Ala Ser Arg Leu Ala His Tyr Asn Lys Arg Ser Thr 100 105

Ile Thr Ser Arg Glu Ile Gln Thr Ala Val Arg Leu Leu Leu Pro Gly

Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys Ala Val Thr Lys 135 140

Tyr Thr Ser Ser Lys

145

<210> 1485

<211> 142

<212> PRT

<213> Homo sapiens

<400> 1485

Asp Pro Arg Val Arg Thr Phe Pro Pro Thr Leu Leu Leu Leu His

Ser Arg Leu Ser Leu Cys Leu Ser His Phe Leu Pro Ser Pro His Pro 20 25

Pro Gln Cys Thr Glu Glu Gly Asn Arg Val Gln Thr His Ala Ala Pro 35 40

Val Leu Arg Arg Glu Gly Lys Pro Arg Arg Glu Ala Ala Met Asn Val

Asp His Glu Val Asn Leu Leu Val Glu Glu Ile His Arg Leu Gly Ser 70

Lys Asn Ala Asp Gly Lys Leu Ser Val Lys Phe Gly Val Leu Phe Arg 85

Asp Asp Lys Cys Ala Asn Leu Phe Glu Ala Leu Val Gly Thr Leu Lys 100 105

Ala Ala Lys Arg Arg Lys Ile Val Thr Tyr Pro Gly Glu Leu Leu Leu 120

Gln Gly Val His Asp Asp Val Asp Ile Ile Leu Leu Gln Asp 130 135 140

<211> 298 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (52) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (183) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (195) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (223) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1486 Arg Gly Lys Cys Pro Ser Thr Ser Ser Leu Met Lys Glu Thr Ala Ala Pro Ser Gln Ile Met Lys Asn Phe Gln Ala Pro Pro Gln Ile Ser Leu Thr Ile Thr Leu Leu Gly Glu Thr Thr Met Met Gln Pro Gln Pro 35 40 45 Thr Gln Gln Xaa Thr Pro Gly Pro Ser Ser Gly Gly His Ala Ser Gln Ser Gly Asp Asn Ser Ser Glu Gln Gly Asp Gly Leu Asp Asn Ser Val Ala Ser Pro Gly Thr Val Thr Asp Asp Asp Pro Asp Lys Asp Lys 85 90 95 Arg Gln Lys Lys Arg Gly Ile Phe Pro Lys Val Ala Thr Asn Ile Met 100 105 Arg Ala Trp Leu Phe Gln His Leu Thr His Pro Tyr Pro Ser Glu Glu Gln Lys Lys Gln Leu Ala Gln Asp Thr Gly Leu Thr Ile Leu Gln Val 130 135

Asn Asn Trp Phe Ile Asn Ala Arg Arg Arg Ile Val Gln Pro Met Ile 145 155 Asp Gln Ser Asn Arg Ala Gly Phe Leu Leu Asp Pro Ser Val Ser Gln Gly Ala Ala Tyr Ser Pro Xaa Gly Gln Pro Met Gly Ser Phe Val Leu 180 185 Asp Gly Xaa Gln His Met Gly Ile Arg Pro Ala Gly Leu Gln Ser Met Pro Gly Asp Tyr Val Ser Gln Gly Gly Pro Met Gly Met Ser Xaa Ala 210 215 Gln Pro Ser Tyr Thr Pro Pro Gln Met Thr Pro His Pro Thr Gln Leu 230 Arg His Gly Pro Pro Met His Ser Tyr Leu Pro Ser His Pro His His 245 250 Pro Ala Met Met His Gly Gly Pro Pro Thr His Pro Gly Met Thr 260 265 Met Ser Ala Gln Ser Pro Thr Met Leu Asn Ser Val Asp Pro Asn Val 275 280 285 Gly Gly Gln Val Met Asp Ile His Ala Gln 290 295 <210> 1487 <211> 133 <212> PRT <213> Homo sapiens <400> 1487 His Gln Ala Ile Lys Pro Gly Tyr Ser Ala Glu Asn Val Ala His Thr Asp His Thr Leu Gly Cys Val Thr Ile Val Trp Cys Thr Cys Trp Lys Asn Ser Ser Met Leu Leu Gly Asp Ile Ile Ser Val Gly Asn Met Pro 35 40 45

Leu Thr Asp Phe Phe Phe Leu Phe Ala Val Gly Leu Gly Gln Leu

60

55

```
Ile Gln Gln Ser Ile Phe Phe Phe Leu Ser Pro Asn Leu Asn Arg
Ser Lys Met Cys Ser Gly Ile Pro Gly Asn Arg Cys Val Cys Lys Val
                85
                                    9.0
Lys Asn Arg Leu Phe Arg Asn Ser Leu Phe Arg Tyr Leu His Pro Ala
            100
                               105
Ser His Val Lys Tyr Leu Ser Leu Lys Gly Leu Arg Cys Thr Ser Phe
                           120
                                               125
Ile Ser Tyr Phe Ser
   130
<210> 1488
<211> 42
<212> PRT
<213> Homo sapiens
<400> 1488
Gln Arg Cys Pro Arg Cys Gly His Glu Gly Met Ala Tyr His Thr Arg
Gln Met Arg Ser Ala Asp Glu Gly Gln Thr Val Phe Tyr Thr Cys Thr
Asn Cys Lys Phe Gln Glu Lys Glu Asp Ser
        35
<210> 1489
<211> 136
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1489
His Glu Ala Ala Phe Val Leu Cys Leu Thr Met Pro Glu Pro Ala Lys
                 5
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Ser Ala Pro Ala Pro Lys Lys Gly Ser Lys Lys Ala Val Thr Lys Ala

25

Gln Lys Lys Asp Gly Lys Lys Arg Lys Arg Ser Arg Lys Glu Ser Tyr 35 40 45

Ile Ser Ser Lys Ala Met Gly Ile Met Asn Ser Phe Val Asn Asp Ile 65 70 75 80

Phe Glu Arg Ile Xaa Gly Glu Ala Ser Arg Leu Ala His Tyr Asn Lys $85 \hspace{1cm} 90 \hspace{1cm} 95$

Arg Ser Thr Ile Thr Ser Arg Glu Ile Gln Thr Ala Val Arg Leu Leu 100 \$105\$

Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys Ala 115 120 125

Val Thr Lys Tyr Thr Ser Ser Lys 130 135

<210> 1490

<211> 235

<212> PRT

<213> Homo sapiens

<400> 1490

Pro Leu Ser Pro Gly Ala Gln Leu Gly Arg Gly Ala Pro Thr Ser Ala 1 5 10 15

Phe Pro Pro Pro Ala Ala Glu Ala His Pro Ala Ala Arg Arg Gly Leu 20 25 30

Arg Ser Pro Gln Leu Pro Ser Gly Ala Met Ser Gln Asn Gly Ala Pro 35 40 45

Ser Asn Asn Gly Asn Gly Gly Ser Val Pro Ala Ser Val Ser Ile Tyr 65 70 75 80

Asn Gly Asp Met Glu Lys Ile Leu Leu Asp Ala Gln His Glu Ser Gly \$95\$

Arg Ser Ser Ser Lys Ser Ser His Cys Asp Ser Pro Pro Arg Ser Gln
100 105 110

Thr Pro Gln Asp Thr Asn Arg Ala Ser Glu Thr Asp Thr His Ser Ile

115 120 125 Gly Glu Lys Asn Ser Ser Gln Ser Glu Glu Asp Asp Ile Glu Arg Arg 135 Lys Glu Val Glu Ser Ile Leu Lys Lys Asn Ser Asp Trp Ile Trp Asp 150 155 Trp Ser Ser Arg Pro Glu Asn Ile Pro Pro Lys Glu Phe Leu Phe Lys 165 170 His Pro Lys Arg Thr Ala Thr Leu Ser Met Arg Asn Thr Ser Val Met 180 185 Lys Lys Gly Gly Ile Phe Ser Ala Glu Phe Leu Lys Val Phe Leu Pro Ser Leu Leu Ser His Leu Leu Ala Ile Gly Leu Gly Ile Tyr Ile 210 215 Gly Arg Arg Leu Thr Thr Ser Thr Ser Thr Phe 230 <210> 1491 <211> 275 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (65) <223> Xaa equals any of the naturally occurring L-amino acids Lys Pro Glu Lys Lys Gly Val His Leu Asn Ser Asp Leu Pro Gln Met Gln His Leu Trp Ile Pro Leu Cys Ala Pro Asn Ser Leu Ser Gln Leu 20 25 Pro Ile Thr Asp Thr Ile Arg Lys Asp Ser Lys Glu Lys Lys Lys Arg 40 Lys Ala Ser Lys Leu Thr Leu Trp Gly Thr Tyr His Gly Met Thr Leu 50

Xaa Ser Val Thr Glu Gly Ala Ser Ala Arg Lys Thr Gln Thr Pro Ala

75

70

Ala Gln Pro Val Pro Arg Pro Val Ser Gln Ala Arg Pro Pro Asn $85 \hspace{0.5cm} 90 \hspace{0.5cm} 95 \hspace{0.5cm}$

Gln Lys Lys Gly Ser Arg Thr Pro Ile Ile Ile Ile Pro Ala Ala Thr \$100\$

Thr Ser Leu Ile Thr Met Leu Asn Ala Lys Asp Leu Leu Gln Asp Leu 115 120 125

Lys Phe Val Pro Ser Asp Glu Lys Lys Lys Gln Gly Cys Gln Arg Glu 130 \$135\$

Asn Glu Thr Leu Ile Gln Arg Arg Lys Asp Gln Met Gln Pro Gly Gly 145 150 155 160

Thr Ala Ile Ser Val Thr Val Pro Tyr Arg Val Val Asp Gln Pro Leu 165 170 175

Lys Leu Met Pro Gln Asp Trp Asp Arg Val Val Ala Val Phe Val Gln 180 185 190

Gly Pro Ala Trp Gln Phe Lys Gly Trp Pro Trp Leu Leu Pro Asp Gly
195 200 205

Ser Pro Val Asp Ile Phe Ala Lys Ile Lys Ala Phe His Leu Lys Tyr 210 215 220

Asp Glu Val Arg Leu Asp Pro Asn Val Gln Lys Trp Asp Val Thr Val 225 230 235

Leu Glu Leu Ser Tyr His Lys Arg His Leu Asp Arg Pro Val Phe Leu 245 250 255

Arg Phe Trp Glu Thr Leu Asp Arg Tyr Met Val Lys His Lys Ser His 260 265 270

Leu Arg Phe 275

<210> 1492

<211> 380 <212> PRT

<213> Homo sapiens

<400> 1492

Gly Leu Arg Leu Gly Ser Trp Ser Gly Glu Glu Lys Gly Ile Pro Thr 1 5 10 · 15

Cys Gly Thr Leu Gly Gly Pro Arg Gly Arg Arg Leu Pro Ile Asp Cys

			20					25					30		
Gly	Arg	Cys 35	Lys	Gly	Arg	Ser	Leu 40	Trp	Arg	Leu	Val	Gly 45	Val	Leu	Gly
Ser	Ala 50	Gly	Gly	Gly	Arg	Gly 55	Val	Ser	Glu	Cys	Glu 60	Arg	Gly	Thr	Gly
11e 65	Pro	Asn	Leu	Arg	Ala 70	Ser	Arg	Leu	Trp	Arg 75	Arg	Gly	Gly	Arg	Ala 80
Gln	Ala	Ala	Met	Arg 85	Asp	Arg	Thr	His	Glu 90	Leu	Arg	Gln	Gly	Asp 95	Asp
Ser	Ser	Asp	Glu 100	Glu	Asp	Lys	Glu	Arg 105	Val	Ala	Leu	Val	Val 110	His	Pro
Gly	Thr	Ala 115	Arg	Leu	Gly	Ser	Pro 120	Asp	Glu	Glu	Phe	Phe 125	His	Lys	Val
Arg	Thr 130	Ile	Arg	Gln	Thr	Ile 135	Val	Lys	Leu	Gly	Asn 140	Lys	Val	Gln	Glu
Leu 145	Glu	Lys	Gln	Gln	Val 150	Thr	Ile	Leu	Ala	Thr 155	Pro	Leu	Pro	Glu	Glu 160
Ser	Met	Lys	Gln	G1u 165	Leu	Gln	Asn	Leu	Arg 170	Asp	Glu	Ile	Lys	Gln 175	Leu
Gly	Arg	Glu	Ile 180	Arg	Leu	Gln	Leu	Lys 185	Ala	Ile	Glu	Pro	Gln 190	Lys	Glu
Glu	Ala	Asp 195	Glu	Asn	Tyr	Asn	ser 200	Val	Asn	Thr	Arg	Met 205	Arg	Lys	Thr
Gln	His 210	Gly	Val	Leu	Ser	Gln 215	Gln	Phe	Val	Glu	Leu 220	Ile	Asn	Lys	Cys
Asn 225	ser	Met	Gln	ser	Glu 230	Tyr	Arg	Glu	Lys	Asn 235	Val	Glu	Arg	Ile	Arg 240
Arg	Gln	Leu	Lys	11e 245	Thr	Asn	Ala	Gly	Met 250	Val	Ser	Asp	Glu	Glu 255	Leu
Glu	Gln	Met	Leu 260	Asp	Ser	Gly	Gln	Ser 265	Glu	Val	Phe	Val	Ser 270	Asn	Ile
Leu	Lys	Asp 275	Thr	Gln	Val	Thr	Arg 280	Gln	Ala	Leu	Asn	Glu 285	Ile	Ser	Ala

Arg His Ser Glu Ile Gln Gln Leu Glu Arg Ser Ile Arg Glu Leu His

290 295 300 Asp Ile Phe Thr Phe Leu Ala Thr Glu Val Glu Met Gln Gly Glu Met 310 315 Ile Asn Arg Ile Glu Lys Asn Ile Leu Ser Ser Ala Asp Tyr Val Glu 330 Arg Glv Gln Glu His Val Lvs Thr Ala Leu Glu Asn Gln Lvs Lvs Ala 345 Arg Lys Lys Lys Val Leu Ile Ala Ile Cys Val Ser Ile Thr Val Val 355 360 365 Leu Leu Ala Val Ile Ile Gly Val Thr Val Val Gly 375 <210> 1493 <211> 88 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (29) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (73) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1493 Ala Gln Lys Glu Leu Thr Lys Ala His Xaa Leu Glu Val Arg Leu His 5 Thr Phe Ser Met Phe Gly Met Pro Arg Leu Pro Pro Xaa Asp Arg Arg 20 25 His Trp Glu Ile Gly Glu Gly Gly Asp Ser Gly Leu Thr Ile Glu Lys

Ser Trp Arg Glu Leu Val Pro Gly His Lys Glu Met Ser Gln Glu Leu

Cys His Gln Gln Glu Ala Leu Trp Xaa Leu Leu Thr Thr Glu Leu Ile 65 70 75 80

Leu Arg Glu Lys Ala Ser Arg Ser 85

<210> 1494

<211> 469 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (299)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 149

Thr Ser Trp Met His Thr Arg Phe Ser Arg Arg Asn Trp Gly Lys Arg $1 \ 5 \ 10 \ 15$

Thr Gly Thr Val Gln Val Leu Lys Arg Ser Gly Arg Glu Leu Ile Glu 20 25 30

Asn Ser Arg Asp Asp Thr Thr Trp Val Lys Gly Gln Leu Gln Glu Leu 35 40 45

Ser Thr Arg Trp Asp Thr Val Cys Lys Leu Ser Val Ser Lys Gln Ser 50 60

Arg Leu Glu Gln Ala Leu Lys Gln Ala Glu Val Phe Arg Asp Thr Val 65 70 75 80

His Met Leu Leu Glu Trp Leu Ser Glu Ala Glu Gln Thr Leu Arg Phe \$85\$

Arg Gly Ala Leu Pro Asp Asp Thr Glu Ala Leu Gln Ser Leu Ile Asp 100 105 110

Thr His Lys Glu Phe Met Lys Lys Val Glu Glu Lys Arg Val Asp Val 115 120 125

Asn Ser Ala Val Ala Met Gly Glu Val Ile Leu Ala Val Cys His Pro 130 \$135\$

Asp Cys Ile Thr Thr Ile Lys His Trp Ile Thr Ile Ile Arg Ala Arg 145 150 155

Phe Glu Glu Val Leu Thr Trp Ala Lys Gln His Gln Gln Arg Leu Glu

				165					170					175	
Thr	Ala	Leu	Ser 180	Glu	Leu	Val	Ala	Asn 185	Ala	Glu	Leu	Leu	Glu 190	Glu	Leu
Leu	Ala	Trp 195	Ile	Gln	Trp	Ala	Glu 200	Thr	Thr	Leu	Ile	Gln 205	Arg	Asp	Gln
Glu	Pro 210	Ile	Pro	Gln	Asn	Ile 215	Asp	Arg	Val	Lys	Ala 220	Leu	Ile	Ala	Glu
His 225	Gln	Thr	Phe	Met	Glu 230	Glu	Met	Thr	Arg	Lys 235	Gln	Pro	Asp	Val	Asp 240
Arg	Val	Thr	Lys	Thr 245	Tyr	Lys	Arg	Lys	Asn 250	Ile	Glu	Pro	Thr	His 255	Ala
Pro	Phe	Ile	Glu 260	Lys	Ser	Arg	Ser	Gly 265	Gly	Arg	Lys	Ser	Leu 270	Ser	Gln
Pro	Thr	Pro 275	Pro	Pro	Met	Pro	11e 280	Leu	Ser	Gln	Ser	G1u 285	Ala	Lys	Asn
Pro	Arg 290	Ile	Asn	Gln	Leu	Ser 295	Ala	Arg	Trp	Xaa	Gln 300	Val	Trp	Leu	Leu
Ala 305	Leu	Glu	Arg	Gln	Arg 310	Lys	Leu	Asn	Asp	Ala 315	Leu	Asp	Arg	Leu	Glu 320
Glu	Leu	Lys	Glu	Phe 325	Ala	Asn	Phe	Asp	Phe 330	Asp	Val	Trp	Arg	Lys 335	Lys
Tyr	Met	Arg	Trp 340	Met	Asn	His	Lys	Lys 345	Ser	Arg	Val	Met	Asp 350	Phe	Phe
Arg	Arg	11e 355	Asp	Lys	Asp	Gln	Asp 360	Gly	Lys	Ile	Thr	Arg 365	Gln	Glu	Phe
Ile	Asp 370	Gly	Ile	Leu	Ala	Ser 375	Lys	Phe	Pro	Thr	Thr 380	Lys	Leu	Glu	Met
Thr 385	Ala	Val	Ala	Asp	11e 390	Phe	Asp	Arg	Asp	Gly 395	Asp	Gly	Tyr	Ile	Asp 400
Tyr	Tyr	Glu	Phe	Val 405	Ala	Ala	Leu	His	Pro 410	Asn	Lys	Asp	Ala	Tyr 415	Arg
Pro	Thr	Thr	Asp 420	Ala	Asp	Lys	Ile	Glu 425	Asp	Glu	Val	Thr	Arg 430	Gln	Val
Ala	Gln	Cys	Lys	Cys	Ala	Lys	Arg	Phe	Gln	Val	Glu	Gln	Ile	Gly	Glu

435 440 445 Asn Lys Tyr Arg Val Arg Lys Arg Lys Ser Ser Pro Leu Leu Trp Trp 455 Phe Leu Ile Cys Gly 465 <210> 1495 <211> 366 <212> PRT <213> Homo sapiens <400> 1495 Thr Asn Tyr Ile Ser Arq Gln Ala Ala Glu Gly Gly Arq Val Glu Gly Pro Pro Leu Arg Pro Pro Ala Thr Ser Arg Arg Trp Ala Gly Pro Thr 25 Leu Trp Arg Met Glu Val Thr Gly Asp Ala Gly Val Pro Glu Ser Gly 35 40 Glu Ile Arg Thr Leu Lys Pro Cys Leu Leu Arg Arg Asn Tyr Ser Arg Glu Gln His Gly Val Ala Ala Ser Cys Leu Glu Asp Leu Arg Ser Lys Ala Cys Asp Ile Leu Ala Ile Asp Lys Ser Leu Thr Pro Val Thr Leu 85 9.0 Val Leu Ala Glu Asp Gly Thr Ile Val Asp Asp Asp Asp Tyr Phe Leu Cys Leu Pro Ser Asn Thr Lys Phe Val Ala Leu Ala Ser Asn Glu Lys 120 Trp Ala Tyr Asn Asn Ser Asp Gly Gly Thr Ala Trp Ile Ser Gln Glu 130 135 140 Ser Phe Asp Val Asp Glu Thr Asp Ser Gly Ala Gly Leu Lys Trp Lys 145 150 160 Asn Val Ala Arg Gln Leu Lys Glu Asp Leu Ser Ser Ile Ile Leu Leu

Ser Glu Glu Asp Leu Gln Met Leu Val Asp Ala Pro Cys Ser Asp Leu

185

Ala Gln Glu Leu Arg Gln Ser Cys Ala Thr Val Gln Arg Leu Gln His 195 200 Thr Leu Gln Gln Val Leu Asp Gln Arg Glu Glu Val Arg Gln Ser Lys Gln Leu Leu Gln Leu Tyr Leu Gln Ala Leu Glu Lys Glu Gly Ser Leu 230 235 Leu Ser Lys Gln Glu Glu Ser Lys Ala Ala Phe Gly Glu Glu Val Asp 250 Ala Val Asp Thr Gly Ile Ser Arg Glu Thr Ser Ser Asp Val Ala Leu 260 265 Ala Ser His Ile Leu Thr Ala Leu Arg Glu Lys Gln Ala Pro Glu Leu Ser Leu Ser Ser Gln Asp Leu Glu Leu Val Thr Lys Glu Asp Pro Lys 295 Ala Leu Ala Val Ala Leu Asn Trp Asp Ile Lys Lys Thr Glu Thr Val 310 315 Gln Glu Ala Cys Glu Arg Glu Leu Ala Leu Arg Leu Gln Gln Thr Gln 330 Ser Leu His Ser Leu Arg Ser Ile Ser Ala Ser Lys Ala Ser Pro Pro 345 Gly Asp Leu Gln Asn Pro Lys Arg Ala Arg Gln Asp Pro Thr 355 360

<210> 1496

<211> 578

<212> PRT

<213> Homo sapiens

<400> 1496

Phe Pro Phe Glu Leu Val Thr Asn Pro Asp Phe Ser Pro Thr Pro Val 1 5 10 15

Thr Phe Glu Lys Ala Leu Asn Ala Gly Phe Ile Gln Ala Thr Asp Tyr \$20\$

Val Glu Ile Trp Gln Ala Tyr Leu Asp Tyr Leu Arg Arg Arg Val Asp 35 40 45

Phe Lys Gln Asp Ser Ser Lys Glu Leu Glu Glu Leu Arg Ala Ala Phe Thr Arg Ala Leu Glu Tyr Leu Lys Gln Glu Val Glu Glu Arg Phe Asn 7.0 Glu Ser Gly Asp Pro Ser Cys Val Ile Met Gln Asn Trp Ala Arg Ile Glu Ala Arg Leu Cys Asn Asn Met Gln Lys Ala Arg Glu Leu Trp Asp 105 Ser Ile Met Thr Arg Gly Asn Ala Lys Tyr Ala Asn Met Trp Leu Glu 120 Tyr Tyr Asn Leu Glu Arg Ala His Gly Asp Thr Gln His Cys Arg Lys 130 135 Ala Leu His Arg Ala Val Gln Cys Thr Ser Asp Tyr Pro Glu His Val 150 Cys Glu Val Leu Leu Thr Met Glu Arg Thr Glu Gly Ser Leu Glu Asp 170 Trp Asp Ile Ala Val Gln Lys Thr Glu Thr Arg Leu Ala Arg Val Asn 185 Glu Gln Arg Met Lys Ala Ala Glu Lys Glu Ala Ala Leu Val Gln Gln 195 200 Glu Glu Glu Lys Ala Glu Gln Arg Lys Arg Ala Arg Ala Glu Lys Lys 215 Ala Leu Lys Lys Lys Lys Ile Arg Gly Pro Glu Lys Arg Gly Ala 230 235 Asp Glu Asp Asp Glu Lys Glu Trp Gly Asp Asp Glu Glu Glu Gln Pro 245 Ser Lys Arg Arg Arg Val Glu Asn Ser Ile Pro Ala Ala Gly Glu Thr 260 265 Gln Asn Val Glu Val Ala Ala Gly Pro Ala Gly Lys Cys Ala Ala Val 280 Asp Val Glu Pro Pro Ser Lys Gln Lys Glu Lys Ala Ala Ser Leu Lys 290 Arg Asp Met Pro Lys Val Leu His Asp Ser Ser Lys Asp Ser Ile Thr 305 310 315

Val	Phe	Val	Ser	Asn 325	Leu	Pro	Tyr	Ser	Met 330	Gln	Glu	Pro	Asp	Thr 335	Lys
Leu	Arg	Pro	Leu 340	Phe	Glu	Ala	Cys	Gly 345	Glu	Val	Val	Gln	11e 350	Arg	Pro
Ile	Phe	Ser 355	Asn	Arg	Gly	Asp	Phe 360	Arg	Gly	Tyr	Суз	Tyr 365	val	Glu	Phe
Lys	Glu 370	Glu	Lys	Ser	Ala	Leu 375	Gln	Ala	Leu	Glu	Met 380	Asp	Arg	Lys	Ser
Val 385	Glu	Gly	Arg	Pro	Met 390	Phe	Val	Ser	Pro	Cys 395	Val	Asp	Lys	Ser	Lys 400
Asn	Pro	Asp	Phe	Lys 405	Val	Phe	Arg	Tyr	Ser 410	Thr	Ser	Leu	Glu	Lys 415	His
Lys	Leu	Phe	Ile 420	Ser	Gly	Leu	Pro	Phe 425	Ser	Cys	Thr	Lys	Glu 430	Glu	Leu
Glu	Glu	11e 435	Cys	Lys	Ala	His	Gly 440	Thr	Val	Lys	Asp	Leu 445	Arg	Leu	Val
Thr	Asn 450	Arg	Ala	Gly	Lys	Pro 455	Lys	Gly	Leu	Ala	Tyr 460	Val	Glu	Tyr	Glu
Asn 465	Glu	Ser	Gln	Ala	Ser 470	Gln	Ala	Val	Met	Lys 475	Met	Asp	Gly	Met	Thr 480
Ile	Lys	Glu	Asn	11e 485	Ile	Lys	Val	Ala	Ile 490	Ser	Asn	Pro	Pro	Gln 495	Arg
Lys	Val	Pro	Glu 500	Lys	Pro	Glu	Thr	Arg 505	Lys	Ala	Pro	Gly	Gly 510	Pro	Met
Leu	Leu	Pro 515	Gln	Thr	Tyr	Gly	Ala 520	Arg	Gly	Lys	Gly	Arg 525	Thr	Gln	Leu
Ser	Leu 530	Leu	Pro	Arg	Ala	Leu 535	Gln	Arg	Pro	Ser	Ala 540	Ala	Ala	Pro	Gln
Ala 545	Glu	Asn	Gly	Pro	Ala 550	Ala	Ala	Pro	Ala	Val 555	Ala	Ala	Pro	Ala	Ala 560
Thr	Glu	Ala	Pro	Lys 565	Met	Ser	Asn	Ala	Asp 570	Phe	Ala	Lys	Leu	Phe 575	Leu
Arg	Lys														

<210> 1497 <211> 316 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (62) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (214) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1497 Pro Trp Ser Ala Ala Ala Gly Leu Arg Ala Gly Val Arg Val Pro Arg Ser Pro Gly Pro Ser Arg Arg Met Pro Ala Arg Ser Gly Ala Gln Phe 25 Cys Arg Arg Met Gly Gln Lys Lys Gln Arg Pro Ala Arg Ala Gly Gln 35 40 Pro His Ser Ser Ser Asp Ala Ala Gln Ala Pro Ala Glu Xaa Pro His 55 Ser Ser Ser Asp Ala Ala Gln Ala Pro Cys Pro Arg Glu Arg Cys Leu Gly Pro Pro Thr Thr Pro Gly Pro Tyr Arg Ser Ile Tyr Phe Ser Ser 90 Pro Lys Gly His Leu Thr Arg Leu Gly Leu Glu Phe Phe Asp Gln Pro 100 105 110 Ala Val Pro Leu Ala Arq Ala Phe Leu Gly Gln Val Leu Val Arg Arg 120 Leu Pro Asn Gly Thr Glu Leu Arg Gly Arg Ile Val Glu Thr Glu Ala 135 140 Tyr Leu Gly Pro Glu Asp Glu Ala Ala His Ser Arg Gly Gly Arg Gln 145 150 Thr Pro Arg Asn Arg Gly Met Phe Met Lys Pro Gly Thr Leu Tyr Val

170

175

Tyr Ile Ile Tyr Gly Met Tyr Phe Cys Met Asn Ile Ser Ser Gln Gly 180 185 190

Asp Gly Ala Cys Val Leu Leu Arg Ala Leu Glu Pro Leu Glu Gly Leu 195 200 205

Glu Thr Met Arg Gln Xaa Arg Ser Thr Leu Arg Lys Gly Thr Ala Ser 210 215 220

Arg Val Leu Lys Asp Arg Glu Leu Cys Ser Gly Pro Ser Lys Leu Cys 225 $$ 230 $$ 235 $$ 240

Gln Ala Leu Ala Ile Asn Lys Ser Phe Asp Gln Arg Asp Leu Ala Gln 245 250250

Asp Glu Ala Val Trp Leu Glu Arg Gly Pro Leu Glu Pro Ser Glu Pro 260 265 270

Ala Val Val Ala Ala Ala Arg Val Gly Val Gly His Ala Gly Glu Trp

Ala Arg Lys Pro Leu Arg Phe Tyr Val Arg Gly Ser Pro Trp Val Ser 290 295 300

Val Val Asp Arg Val Ala Glu Gln Asp Thr Gln Ala 305 310 315

<210> 1498

<211> 82

<212> PRT

<213> Homo sapiens

<400> 1498

Lys Cys Asn Tyr Val Leu Ser Ala Ser Lys Phe Lys Thr Tyr Trp Asn $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Val Glu Ser Val Val Thr Lys Tyr Val Arg Arg Thr Lys Gly Met Cys 20 25 30

Lys Ser Leu Met Pro Ile Ser Ser Glu Asn Leu Ser Lys Leu Thr Gly 35 40 45

Pro Ala Glu Thr Ala His Ser Ala Arg Arg Asn His Asp Ile Ala Leu 50 60

Pro Cys Gly Arg Ser Thr Cys Leu Glu Asn Thr Val Leu Tyr Tyr His 65 70 75 80

Tyr Gly

```
<210> 1499
<211> 75
<212> PRT
<213> Homo sapiens
<400> 1499
Ser Cys Cys Leu Glu Asn Tyr Ser Phe Leu Ser Trp Ser Ala Asp Arg
Asn Ser His Thr Asn Leu Ile Gly Leu Lys Cys Ile Phe Arg Gln Gln
                                25
Gly Thr Lys Gln Arg Gly Thr Gly Leu Leu Asp Trp Arg Lys Ser Leu
Leu Ala Trp Trp Ala Val Phe Gln Glu Arg Pro Cys Pro Cys Ser Leu
                       55
Leu Gly Thr Phe Gln Phe Arg Phe Pro Leu Val
                 70 75
<210> 1500
<211> 144
<212> PRT
<213> Homo sapiens
<400> 1500
Lys Arg Ser Trp Ala Gly Gly Arg Ala Arg Arg Lys Leu Phe Gly Gly
Leu Val Trp Ile Leu Val Ala Ser Ser Asn Val Pro Leu Pro Leu Leu
            20
                               25
Gln Gly Trp Val Met Phe Val Ser Val Thr Ala Phe Phe Phe Ser Leu
                            40
Leu Phe Leu Gly Met Phe Leu Ser Gly Met Val Ala Gln Ile Asp Ala
Asn Trp Asn Phe Leu Asp Phe Ala Tyr His Phe Thr Val Phe Val Phe
65
                   70
Tyr Phe Gly Ala Phe Leu Leu Glu Ala Ala Ala Thr Ser Leu His Asp
```

90

Leu His Cys Asn Thr Thr Ile Thr Gly Gln Pro Leu Leu Ser Asn Asn 100 105 110

Gln Tyr Asn Ile Asn Val Ala Ala Ser Ile Phe Ala Phe Met Thr Thr \$115\$ \$120\$ \$125\$

Ala Cys Tyr Gly Cys Ser Leu Gly Leu Ala Leu Arg Arg Trp Arg Pro 130 135 140

<210> 1501

<211> 123

<212> PRT <213> Homo sapiens

<400> 1501

Val Leu Pro Gly Gly Ser Leu Lys Val Gln Lys Cys Cys Pro Lys Pro 1 $$ 15

Ser Leu Asn Ile Ser Gly Asn Arg Ser Cys Ser Thr Met Gly Val Gln $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Cys Pro Cys Leu Pro Leu Thr Gln Leu Trp Phe Ile Leu Leu Val Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu His Arg Pro Asp Ala Arg Val Pro Cys Leu Ile Leu His Leu Leu 50 55 60

Ser His Trp Gly Ser Leu Pro Ser Asp Ala Leu Ala Lys Ile Ala Leu 65 70 75 80

Val Cys Ser Arg Lys Glu Gly Gln Ile Pro Gly Ile Val Arg Ala Ala 85 90 95

Glu Leu Tyr Arg Ile Gly Leu Pro Pro Pro Pro Val Trp Leu Ala Leu $100 \hspace{1cm} 105 \hspace{1cm} 110 \hspace{1cm}$

His Ser Leu Gln Ile Pro Pro Thr Ser Thr Gln 115 120

<210> 1502

<211> 426

<212> PRT

<213> Homo sapiens

<400> 1502 Glu Ile Tyr Ser Leu Ser Arg Phe Ile Glu Val Lys Met Ser Lys Lys Ile Ser Gly Gly Ser Val Val Glu Met Gln Gly Asp Glu Met Thr Arg Ile Ile Trp Glu Leu Ile Lys Glu Lys Leu Ile Phe Pro Tyr Val Glu 40 Leu Asp Leu His Ser Tyr Asp Leu Gly Ile Glu Asn Arg Asp Ala Thr Asn Asp Gln Val Thr Lys Asp Ala Ala Glu Ala Ile Lys Lys His Asn 70 Val Gly Val Lys Cys Ala Thr Ile Thr Pro Asp Glu Lys Arg Val Glu 90 Glu Phe Lys Leu Lys Gln Met Trp Lys Ser Pro Asn Gly Thr Ile Arg 105 Asn Ile Leu Gly Gly Thr Val Phe Arg Glu Ala Ile Ile Cys Lys Asn 120 Ile Pro Arg Leu Val Ser Gly Trp Val Lys Pro Ile Ile Ile Gly Arg 135 His Ala Tyr Gly Asp Gln Tyr Arg Ala Thr Asp Phe Val Val Pro Gly 150 155 Pro Gly Lys Val Glu Ile Thr Tyr Thr Pro Ser Asp Gly Thr Gln Lys 165 170 Val Thr Tyr Leu Val His Asn Phe Glu Glu Gly Gly Val Ala Met Gly Met Tyr Asn Gln Asp Lys Ser Ile Glu Asp Phe Ala His Ser Ser 200 Phe Gln Met Ala Leu Ser Lys Gly Trp Pro Leu Tyr Leu Ser Thr Lys 210 220 215 Asn Thr Ile Leu Lys Lys Tyr Asp Gly Arg Phe Lys Asp Ile Phe Gln 225 230 Glu Ile Tyr Asp Lys Gln Tyr Lys Ser Gln Phe Glu Ala Gln Lys Ile 250

Trp Tyr Glu His Arg Leu Ile Asp Asp Met Val Ala Gln Ala Met Lys 260 265 270

Ser Glu Gly Gly Phe Ile Trp Ala Cys Lys Asn Tyr Asp Gly Asp Val 275 280 285

Gln Ser Asp Ser Val Ala Gln Gly Tyr Gly Ser Leu Gly Met Met Thr 290 295 300

Ser Val Leu Val Cys Pro Asp Gly Lys Thr Val Glu Ala Glu Ala Ala 305 310 315 320

His Gly Thr Val Thr Arg His Tyr Arg Met Tyr Gln Lys Gly Gln Glu

Thr Ser Thr Asn Pro Ile Ala Ser Ile Phe Ala Trp Thr Arg Gly Leu $340 \hspace{1cm} 345 \hspace{1cm} 345$

Ala His Arg Ala Lys Leu Asp Asn Asn Lys Glu Leu Ala Phe Phe Ala 355 360 365

Asn Ala Leu Glu Glu Val Ser Ile Glu Thr Ile Glu Ala Gly Phe Met $370 \hspace{1cm} 375 \hspace{1cm} 380$

Thr Lys Asp Leu Ala Ala Cys Ile Lys Gly Leu Pro Asn Val Gln Arg 385 390 395 400

Ser Asp Tyr Leu Asn Thr Phe Glu Phe Met Asp Lys Leu Gly Glu Asn 405 410 415

Leu Lys Ile Lys Leu Ala Gln Ala Lys Leu 420 425

<210> 1503

<211> 65

<212> PRT

<213> Homo sapiens

<400> 1503

Phe Asn Lys Arg Lys Met Lys Tyr Ser Val Ala Tyr Ile Phe His Arg

Ala His Glu His Leu Leu Tyr Leu Leu Gly Leu Ala Lys Ile Ile Tyr \$20\$ \$25\$ \$30

Ser Ala Ala Leu Pro Lys Cys Leu His Thr Lys Leu Lys Val Val Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Ile Tyr Val Ser Trp Lys Leu Phe Ile Lys Phe Lys Gly Ile Ser Phe 50 55

```
Arq
 65
<210> 1504
<211> 82
<212> PRT
<213> Homo sapiens
<400> 1504
Phe Phe Val Ile Pro Ser Ser Gly Ser Ile Cys Phe Cys Ser Leu Val
                                    10
                  5
Thr Val Leu Met Phe Asn Cys Cys Thr Leu Lys Pro Lys Ser Val Thr
Met His Thr Val Thr Lys Val Leu Gly Leu Gln Ser Cys Leu Leu Tyr
                    40
Lys Glu Asn Phe Lys Cys Cys Cys Lys Leu Thr Ser Tyr Thr Ile Leu
                         55
Asn Phe Leu Ser Ser Pro Leu Phe Leu Pro Thr Asn Gly Ile Ile Met
 65
                    70
                                        75
Leu Ala
<210> 1505
<211> 82
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1505
Glu Gly Cys Ala Ala Ala Met Ala Leu Arg Met Leu Trp Ala Gly Gln
```

Leu Leu Gln His Pro Gly Val Tyr Ser Lys Cys Tyr Phe Gln Ala $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

20

Ala Lys Gly Ile Leu Gly Gly Trp Gly Ile Ile Cys Leu Val Met Ser

Gln Ala Pro Cys His Tyr Glu Gly Lys Tyr Phe Thr Leu Gly Xaa Ser 50 55 60

Trp Leu Arg Lys Asp Cys Phe His Cys Thr Cys Leu His Pro Val Ala 65 70 75 80

Trp Ala

<210> 1506

<210> 150 <211> 419

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (404) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (405)

<223> Xaa equals any of the naturally occurring L-amino acids

<4005 1506

Ala Arg Val Asp Arg Glu Thr Arg Ala Leu Ala Asp Ser His Phe Arg 1 5 10 15

Gly Leu Gly Val Asp Val Pro Gly Val Gly Gln Ala Pro Gly Arg Val 20 25 30

Ala Phe Val Ser Glu Pro Gly Ala Phe Ser Tyr Ala Asp Phe Val Arg \$35\$ \$40\$

Gly Phe Leu Leu Pro Asn Leu Pro Cys Val Phe Ser Ser Ala Phe Thr $50 \hspace{1cm} 55 \hspace{1cm} 60$

Gln Gly Trp Gly Ser Arg Arg Trp Val Thr Pro Ala Gly Arg Pro 65 70 75 80

Asp Phe Asp His Leu Leu Arg Thr Tyr Gly Asp Val Val Val Pro Val 85 90 95

Ala Asn Cys Gly Val Gln Glu Tyr Asn Ser Asn Pro Lys Glu His Met $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Thr Leu Arg Asp Tyr Ile Thr Tyr Trp Lys Glu Tyr Ile Gln Ala Gly

Tyr	Ser 130	Ser	Pro	Arg	Gly	Cys 135	Leu	Tyr	Leu	Lys	Asp 140	Trp	His	Leu	Cys
Arg 145	Asp	Phe	Pro	Val	Glu 150	Asp	Val	Phe	Thr	Leu 155	Pro	Val	Tyr	Phe	Ser 160
Ser	Asp	Trp	Leu	Asn 165	Glu	Phe	Trp	Asp	Ala 170	Leu	Asp	Val	Asp	Asp 175	Tyr
Arg	Phe	Val	Tyr 180	Ala	Gly	Pro	Ala	Gly 185	Ser	Trp	Ser	Pro	Phe 190	His	Ala
Asp	Ile	Phe 195	Arg	Ser	Phe	Ser	Trp 200	Ser	Val	Asn	Val	Cys 205	Gly	Arg	Lys
Lys	Trp 210	Leu	Leu	Phe	Pro	Pro 215	Gly	Gln	Glu	Glu	Ala 220	Leu	Arg	Asp	Arg
His 225	Gly	Asn	Leu	Pro	Туг 230	Asp	Val	Thr	ser	Pro 235	Ala	Leu	Cys	Asp	Thr 240
His	Leu	His	Pro	Arg 245	Asn	Gln	Leu	Ala	Gly 250	Pro	Pro	Leu	Glu	Ile 255	Thr
Gln	Glu	Ala	Gly 260	Glu	Met	Val	Phe	Val 265	Pro	Ser	Gly	Trp	His 270	His	Gln
Val	His	Asn 275	Leu	Asp	Asp	Thr	11e 280	Ser	Ile	Asn	His	Asn 285	Trp	Val	Asn
Gly	Phe 290	Asn	Leu	Ala	Asn	Met 295	Trp	Arg	Phe	Leu	Gln 300	Gln	Glu	Leu	Cys
Ala 305	Val	Gln	Glu	Glu	Val 310	Ser	Glu	Trp	Arg	Asp 315	Ser	Met	Pro	Asp	Trp 320
His	His	His	Cys	G1n 325	Val	Ile	Met	Arg	Ser 330	Cys	Ser	Gly	Ile	Asn 335	Phe
Glu	Glu	Phe	Tyr 340	His	Phe	Leu	Lys	Val 345	Ile	Ala	Glu	Lys	Arg 350	Leu	Leu
Val	Leu	Arg 355	Glu	Ala	Ala	Ala	Glu 360	Asp	Gly	Ala	Gly	Leu 365	Gly	Phe	Glu
Gln	Ala 370	Ala	Phe	Asp	Val	Gly 375	Arg	Ile	Thr	Glu	Val 380	Leu	Ala	Ser	Leu
Val 385	Ala	His	Pro	Asp	Phe 390	Gln	Arg	Val	Asp	Thr 395	Ser	Ala	Phe	Ser	Pro 400

Gln Pro Lys Xaa Xaa Leu Gln Gln Leu Arg Glu Ala Val Asp Ala Ala 405 \$410\$

Ala Ala Pro

<210> 1507

<210> 150 <211> 220

<212> PRT

<213> Homo sapiens

<400> 1507

Pro Arg Val Arg Ser Gly Arg Thr Ile Met Gln Ser Ala Met Phe Leu

Ala Val Gln His Asp Cys Arg Pro Met Asp Lys Ser Ala Gly Ser Gly 20 25 30

His Lys Ser Glu Glu Lys Arg Glu Lys Met Lys Arg Thr Leu Leu Lys 35 40 45

Gly Lys Pro Lys Thr Gly Lys Lys Ser Lys Gln Gln Ala Phe Ile Lys 65 70 75 80

Pro Ser Pro Glu Glu Ala Gln Leu Trp Ser Glu Ala Phe Asp Glu Leu 85 90 95

Leu Ala Ser Lys Tyr Gly Leu Ala Ala Phe Arg Ala Phe Leu Lys Ser 100 105 110

Glu Phe Cys Glu Glu Asn Ile Glu Phe Trp Leu Ala Cys Glu Asp Phe 115 120 125

Lys Lys Thr Lys Ser Pro Gln Lys Leu Ser Ser Lys Ala Arg Lys Ile $130 \hspace{1.5cm} 135 \hspace{1.5cm} 140 \hspace{1.5cm}$

Tyr Thr Asp Phe Ile Glu Lys Glu Ala Pro Lys Glu Ile Asn Ile Asp 145 150 150 155 160

Phe Gln Thr Lys Thr Leu Ile Ala Gln Asn Ile Gln Glu Ala Thr Ser 165 170 175

Gly Cys Phe Thr Thr Ala Gln Lys Arg Val Tyr Ser Leu Met Glu Asn 180 185 190

Asn Ser Tyr Pro Arg Phe Leu Glu Ser Glu Phe Tyr Gln Asp Leu Cys

195 200 205

Lys Lys Pro Gln Ile Thr Thr Glu Pro His Ala Thr 210 215 220

<210> 1508

<211> 339

<212> PRT

<213> Homo sapiens

<400> 1508

Phe Gly Thr Arg Arg Ser Gly Cys Pro Ala Arg Gly His Ser Glu Pro 1 $$ 10 $$ 15

Gly Gly Arg Glu Glu Gly Gly Met Pro Gln Thr Val Ile Leu Pro Gly \$20\$

Pro Ala Pro Trp Gly Phe Arg Leu Ser Gly Gly Ile Asp Phe Asn Gln $35 \hspace{1cm} 40 \hspace{1cm} 45$

Pro Leu Val Ile Thr Arg Ile Thr Pro Gly Ser Lys Ala Ala Ala Ala 50 55 60

Asn Leu Cys Pro Gly Asp Val Ile Leu Ala Ile Asp Gly Phe Gly Thr 65 70 75 80

Glu Ser Met Thr His Ala Asp Ala Gln Asp Arg Ile Lys Ala Ala Ala 85 90 95

His Gln Leu Cys Leu Lys Ile Asp Arg Gly Glu Thr His Leu Trp Ser $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Pro Gln Val Ser Glu Asp Gly Lys Ala His Pro Phe Lys Ile Asn Leu 115 120 125

Glu Ser Glu Pro Gln Glu Phe Lys Pro Ile Gly Thr Ala His Asn Arg 130 135 140

Arg Ala Gln Pro Phe Val Ala Ala Ala Asn Ile Asp Asp Lys Arg Gln 145 150 155 160

Val Val Ser Ala Ser Tyr Asn Ser Pro Ile Gly Leu Tyr Ser Thr Ser 165 \$170\$

Asn Ile Gln Asp Ala Leu His Gly Gln Leu Arg Gly Leu Ile Pro Ser \$180\$ \$185\$ \$190

Ser Pro Gln Asn Glu Pro Thr Ala Ser Val Pro Pro Glu Ser Asp Val

Tyr Arg Met Leu His Asp Asn Arg Asn Glu Pro Thr Gln Pro Arg Gln 210 215 220

Ser Gly Ser Phe Arg Val Leu Gln Gly Met Val Asp Asp Gly Ser Asp 225 230 235 240

Asp Arg Pro Ala Gly Thr Arg Ser Val Arg Ala Pro Val Thr Lys Val 245 250 255

His Gly Gly Ser Gly Gly Ala Gln Arg Met Pro Leu Cys Asp Lys Cys 260 265 270

Gly Ser Gly Ile Val Gly Ala Val Val Lys Ala Arg Asp Lys Tyr Arg 275 280 285

His Pro Glu Cys Phe Val Cys Ala Asp Cys Asn Leu Asn Leu Lys Gln 290 295

Lys Gly Tyr Phe Phe Ile Glu Gly Glu Leu Tyr Cys Glu Thr His Ala 305 310 315

Arg Ala Arg Thr Lys Pro Pro Glu Gly Tyr Asp Thr Val Thr Leu Tyr \$325\$ \$330\$ \$335\$

Pro Lys Ala

<210> 1509

<211> 388

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (226)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1509

Leu Gly Arg Val Ser Met Ser Leu Gly Trp Leu Glu Arg Pro Pro Ala 1 5 10 15

Leu Ser Arg Ala Ala Gly Asp Gly Ala Arg Arg Leu Ser Gly Ser Arg \$20\$ \$25\$.30

Arg Gly Asp Val Trp Leu Thr Ser Ser Ala Ala Gly Leu Leu Arg Ser 35 40 45

Val Ala Gly Gly Ser Trp Cys Gly Gly Gln Leu Arg Ala Arg Gly Gly

50 55 6.0 Ser Gly Arg Cys Val Ala Arg Ala Met Thr Gly Asn Ala Gly Glu Trp 75 Cys Leu Met Glu Ser Asp Pro Gly Val Phe Thr Glu Leu Ile Lys Gly 90 Phe Gly Cys Arg Gly Ala Gln Val Glu Glu Ile Trp Ser Leu Glu Pro 100 105 110 Glu Asn Phe Glu Lys Leu Lys Pro Val His Gly Leu Ile Phe Leu Phe 120 Lys Trp Gln Pro Gly Glu Glu Pro Ala Gly Ser Val Val Gln Asp Ser 135 Arg Leu Asp Thr Ile Phe Phe Ala Lys Gln Val Ile Asn Asn Ala Cys 145 Ala Thr Gln Ala Ile Val Ser Val Leu Leu Asn Cys Thr His Gln Asp 165 170 Val His Leu Gly Glu Thr Leu Ser Glu Phe Lys Glu Phe Ser Gln Ser 185 Phe Asp Ala Ala Met Lys Gly Leu Ala Leu Ser Asn Ser Asp Val Ile 200 Arg Gln Val His Asn Ser Phe Ala Arg Gln Gln Met Phe Glu Phe Asp 210 215 Thr Xaa Thr Ser Ala Lys Glu Glu Asp Ala Phe His Phe Val Ser Tyr 225 230 235 Val Pro Val Asn Gly Arg Leu Tyr Glu Leu Asp Gly Leu Arg Glu Gly 250 Pro Ile Asp Leu Gly Ala Cys Asn Gln Asp Asp Trp Phe Ser Ala Val 260 265 Arg Pro Val Ile Glu Lys Arg Ile Gln Lys Tyr Ser Glu Gly Glu Ile 280 Arg Phe Asn Leu Met Ala Ile Val Ser Asp Arg Lys Met Ile Tyr Glu 295 300 Gln Lys Ile Ala Glu Leu Gln Arg Gln Leu Ala Glu Glu Pro Met Asp 305 315 310

Thr Asp Gln Gly Asn Ser Met Leu Ser Ala Ile Gln Ser Glu Val Ala

325 330 335 Lys Asn Gln Met Leu Ile Glu Glu Glu Val Gln Lys Leu Lys Arg Tyr 345 Lys Ile Glu Asn Ile Arg Arg Lys His Asn Tyr Leu Pro Phe Ile Met 360 Glu Leu Leu Lys Thr Leu Ala Glu His Gln Gln Leu Ile Pro Leu Val 370 375 380 Glu Lvs Glv Lvs 385 <210> 1510 <211> 260 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (249) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1510 arg Gly Gln Val Pro Ser Ser Leu Ala His Gly Cys Val Arg Pro 1.0 Gly Glu Pro Ser Trp Pro Gly Glu Pro Ser Trp Pro Ala Arg Val Leu Arg Arg Arg Gln Val Leu Tyr Pro Arg Phe Gln Ser Arg Gly Pro Gln Gly Val Glu Asp Gly Asp Arg Pro Gln Pro Ser Ser Lys Thr Pro Arg 50 55 Ile Pro Lys Ile Tyr Thr Lys Thr Gly Asp Lys Gly Phe Ser Ser Thr Phe Thr Gly Glu Arg Arg Pro Lys Asp Asp Gln Val Phe Glu Ala Val 90

Gly Thr Thr Asp Glu Leu Ser Ser Ala Ile Gly Phe Ala Leu Glu Leu

Val Thr Glu Lys Gly His Thr Phe Ala Glu Glu Leu Gln Lys Ile Gln

125

120

100

Cys Thr Leu Gln Asp Val Gly Ser Ala Leu Ala Thr Pro Cys Ser Ser 135 Ala Arg Glu Ala His Leu Lys Tyr Thr Thr Phe Lys Ala Gly Pro Ile 150 155 Leu Glu Leu Glu Gln Trp Ile Asp Lys Tyr Thr Ser Gln Leu Pro Pro 165 170 Leu Thr Ala Phe Ile Leu Pro Ser Gly Gly Lys Ile Ser Ser Ala Leu 185 His Phe Cys Arg Ala Val Cys Arg Arg Ala Glu Arg Arg Val Val Pro 200 Leu Val Gln Met Gly Glu Thr Asp Ala Asn Val Ala Lys Phe Leu Asn 210 215 220 Arg Leu Ser Asp Tyr Leu Phe Thr Leu Ala Arg Tyr Ala Ala Met Lys 225 Glu Gly Asn Gln Glu Lys Ile Tyr Xaa Lys Asn Asp Pro Ser Ala Glu 245 250 ser Glu Gly Leu 260 <210> 1511 <211> 288 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (162) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1511 Gln His Phe His Phe Arg Lys Pro Thr Asp Val Leu Gln Thr Val Lys 1 10 15 Leu Leu Asp Leu Ser Ser Asn Gln Leu Ile Asp Glu Asn Gln Leu Tyr 20 Leu Ile Ala His Leu Pro Arg Leu Glu Gln Leu Ile Leu Ser Asp Thr Gly Ile Ser Ser Leu His Phe Pro Asp Ala Gly Ile Gly Cys Lys Thr

55

Ser Met Phe Pro Ser Leu Lys Tyr Leu Val Val Asn Asp Asn Gln Ile 65 70 75 80

Ser Gln Trp Ser Phe Phe Asn Glu Leu Glu Lys Leu Pro Ser Leu Arg \$85\$ 90 95

Ala Leu Ser Cys Leu Arg Asn Pro Leu Thr Lys Glu Asp Lys Glu Ala 100 105 110

Glu Thr Ala Arg Leu Leu Ile Ile Ala Ser Ile Gly Gln Leu Lys Thr 115 120 125

Leu Asn Lys Cys Glu Ile Leu Pro Glu Glu Arg Arg Arg Ala Glu Leu 130 135 140

Asp Tyr Arg Lys Ala Phe Gly Asn Glu Trp Lys Gln Ala Gly Gly His 145 150 155 160

Lys Xaa Pro Glu Lys Asn Arg Leu Ser Glu Glu Phe Leu Thr Ala His 165 170 175

Glu Leu Lys Thr Gln Gln Pro Leu Met Leu Lys Asn Gln Leu Leu Thr 195 200 205

Leu Lys Ile Lys Tyr Pro His Gln Leu Asp Gln Lys Val Leu Glu Lys 210 215 220

Gln Leu Pro Gly Ser Met Thr Ile Gln Lys Val Lys Gly Leu Leu Ser 225 $$ 230 $$ 235 $$ 240

Arg Leu Leu Lys Val Pro Val Ser Asp Leu Leu Leu Ser Tyr Glu Ser 245 250 255

Pro Lys Lys Pro Gly Arg Glu Ile Glu Leu Glu Asn Asp Leu Lys Ser \$260\$

Leu Gln Phe Tyr Ser Val Glu Asn Gly Asp Cys Leu Leu Val Arg Trp \$275\$ \$280\$

<210> 1512

<211> 123

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1512

Lys Cys Pro Arg Glu Pro Leu Val His Arg Arg Phe Val Ser Thr Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Pro Ile Phe Thr Ala Leu Ala Leu Gln Ala Trp Gly Ser Ile Cys Ser 20 25 30

Ser His Val Lys Ser Gly Pro Ala Phe Leu Asn Ser Val Gln Ala Asp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Phe Ser Cys Thr Gly Ile Ser Tyr Gln Pro Asn Ile Cys Ile Glu $50 \ \ 55 \ \ \ 60$

Gln Arg Gly Leu Cys Ala Pro Pro Xaa Met Ala Ala Met Met Ala Ala 65 70 75 80

Val Ile His Ala His Leu Gln Thr Ser Gln Ser Gly Ser Glu Met Ser 85 90 95

Thr Asn Ile Cys Gly Arg Lys Gly Tyr Thr Asp His Pro Val Val Leu 100 105 110

Gln Leu Tyr Arg Ala Arg Lys Gly Cys Gly Lys 115 120

<210> 1513

<211> 108 <212> PRT

<213> Homo sapiens

<400> 1513

Ala Asp Gly Gly Trp Gly Glu Asp Phe Glu Ser Cys Glu Glu Arg Arg 1 5 10 15

Tyr Val Gln Ser Ala Gln Ser Gln Ile His Asn Thr Cys Trp Ala Met 20 25 30

Met Gly Leu Met Ala Val Arg His Pro Asp Ile Glu Ala Gln Glu Arg $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Val Arg Cys Leu Leu Glu Lys Gln Leu Pro Asn Gly Asp Trp Pro 50 55 60

Gln Glu Asn Ile Ala Gly Val Phe Asn Lys Ser Cys Ala Ile Ser Tyr 65 70 75 80

Thr Ser Tyr Arg Asn Ile Phe Pro Ile Trp Ala Leu Gly Arg Phe Ser $85 \hspace{1cm} 90 \hspace{1cm} 95$

Gln Leu Tyr Pro Glu Arg Ala Leu Ala Gly His Pro

<210> 1514

<211> 33

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1514

Ser Trp Xaa Ser Thr Ala Val Ala Ala Ala Leu Glu Leu Val Asp Pro 1 5 10 15

Pro Gly Cys Arg Asn Ser Ala Arg Val Ser Leu Phe Val Cys Phe Phe $20 \\ 25 \\ 30$

Leu

<210> 1515

<211> 479

<212> PRT

<213> Homo sapiens

<400> 1515

Gly Thr Arg Arg Pro Ser Ser Ser Val Arg Ser Gly Ser Trp Ser Arg 1 5 10 15

Leu Pro Gly Tyr Arg Gly Ala Ser Met Thr Thr Met Ala Ala Ala Thr \$20\$

Leu Leu Arg Ala Thr Pro His Phe Ser Gly Leu Ala Ala Gly Arg Thr $35 \hspace{1cm} 40 \hspace{1cm} 45$

Phe Leu Leu Gln Gly Leu Leu Arg Leu Leu Lys Ala Pro Ala Leu Pro 50 55 60

Leu 65	Leu	Cys	Arg	Gly	Leu 70	Ala	Val	Glu	Ala	Lys 75	Lys	Thr	Tyr	Val	Arg 80
Asp	Lys	Pro	His	Val 85	Asn	Val	Gly	Thr	Ile 90		His	Val	Asp	His 95	Gly
Lys	Thr	Thr	Leu 100	Thr	Ala	Ala	Ile	Thr 105	Lys	Ile	Leu	Ala	Glu 110	Gly	Gly
Gly	Ala	Lys 115	Phe	Lys	Lys	Tyr	Glu 120	Glu	Ile	Asp	Asn	Ala 125	Pro	Glu	Glu
Arg	Ala 130	Arg	Gly	Ile	Thr	Ile 135	Asn	Ala	Ala	His	Val 140	Glu	Tyr	Ser	Thr
Ala 145	Ala	Arg	His	Tyr	Ala 150	His	Thr	Asp	Cys	Pro 155	Gly	His	Ala	Asp	Туг 160
Val	Lys	Asn	Met	11e 165	Thr	Gly	Thr	Ala	Pro 170	Leu	Asp	Gly	Cys	11e 175	Leu
Val	Val	Ala	Ala 180	Asn	Asp	Gly	Pro	Met 185	Pro	Gln	Thr	Arg	Glu 190	His	Leu
Leu	Leu	Ala 195	Arg	Gln	Ile	Gly	Val 200	Glu	His	Val	Val	Val 205	Tyr	Val	Asn
Lys	Ala 210	Asp	Ala	Val	Gln	Asp 215	Ser	Glu	Met	Val	Glu 220	Leu	Val	Glu	Leu
Glu 225	Ile	Arg	Glu	Leu	Leu 230	Thr	Glu	Phe	Gly	Tyr 235	Lys	Gly	Glu	Glu	Thr 240
Pro	Val	Ile	Val	Gly 245	Ser	Ala	Leu	Cys	Ala 250	Leu	Glu	Gly	Arg	Asp 255	Pro
Glu	Leu	Gly	Leu 260	Lys	Ser	Val	Gln	Lys 265	Leu	Leu	Asp	Ala	Val 270	Asp	Thr
Tyr	Ile	Pro 275	Val	Pro	Ala	Arg	Asp 280	Leu	Glu	Lys	Pro	Phe 285	Leu	Leu	Pro
Val	Glu 290	Ala	Val	Tyr	Ser	Val 295	Pro	Gly	Arg	Gly	Thr 300	Val	Val	Thr	Gly
Thr 305	Leu	Glu	Arg	Gly	Ile 310	Leu	Lys	Lys	Gly	Asp 315	Glu	Cys	Glu	Leu	Leu 320
Gly	His	Ser	Lys	Asn 325	Ile	Arg	Thr	Val	Val 330	Thr	Gly	Ile	Glu	Met 335	Phe

His Lys Ser Leu Glu Arg Ala Glu Ala Gly Asp Asn Leu Gly Ala Leu 340 345 350

Val Arg Gly Leu Lys Arg Glu Asp Leu Arg Arg Gly Leu Val Met Val 355 360 365

Lys Pro Gly Ser Ile Lys Pro His Gln Lys Val Glu Ala Gln Val Tyr 370 375 380

Ile Leu Ser Lys Glu Glu Gly Gly Arg His Lys Pro Phe Val Ser His 385 \$390\$ 395 400

Phe Met Pro Val Met Phe Ser Leu Thr Trp Asp Met Ala Cys Arg Ile 405 410 415

Ile Leu Pro Pro Glu Lys Glu Leu Ala Met Pro Gly Glu Asp Leu Lys \$420\$

Phe Asn Leu Ile Leu Arg Gln Pro Met Ile Leu Glu Lys Gly Gln Arg 435 440 445

Phe Thr Leu Arg Asp Gly Asn Arg Thr Ile Gly Thr Gly Leu Val Thr 450 \$455\$

Asn Thr Leu Ala Met Thr Glu Glu Glu Lys Asn Ile Lys Trp Gly 465 470 475

<210> 1516

<211> 627

<212> PRT

<213> Homo sapiens

<400> 1516

Arg Gln Glu Leu Ile Trp Pro Leu Cys Ser Pro Pro Gln Gly Asp Arg $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Phe Leu Gln Lys Ser Trp Ile Phe Phe Arg Pro Val Met Ala Asp Lys 20 25 30

Leu Thr Arg Ile Ala Ile Val Asn His Asp Lys Cys Lys Pro Lys Lys 35 40 45

Cys Arg Gln Glu Cys Lys Lys Ser Cys Pro Val Val Arg Met Gly Lys $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60 \hspace{1.5cm}$

Leu Cys Ile Glu Val Thr Pro Gln Ser Lys Ile Ala Trp Ile Ser Glu 65 70 75 80

Thr	Leu	Cys	Ile	Gly 85	Cys	Gly	Ile	Cys	11e 90	Lys	Lys	Cys	Pro	Phe 95	Gly
Ala	Leu	Ser	Ile 100	Val	Asn	Leu	Pro	Ser 105	Asn	Leu	Glu	Lys	Glu 110	Thr	Thr
His	Arg	Tyr 115	Cys	Ala	Asn	Ala	Phe 120	Lys	Leu	His	Arg	Leu 125	Pro	Ile	Pro
Arg	Pro 130	Gly	Glu	Val	Leu	Gly 135	Leu	Val	Gly	Thr	Asn 140	Gly	Ile	Gly	Lys
Ser 145	Thr	Ala	Leu	Lys	11e 150	Leu	Ala	Gly	Lys	Gln 155	Lys	Pro	Asn	Leu	Gly 160
Lys	Tyr	Asp	Asp	Pro 165	Pro	Asp	Trp	Gln	Glu 170	Ile	Leu	Thr	Tyr	Phe 175	Arg
Gly	Ser	Glu	Leu 180	Gln	Asn	Tyr	Phe	Thr 185	Lys	Ile	Leu	Glu	Asp 190	Asp	Leu
Lys	Ala	Ile 195	Ile	Lys	Pro	Gln	Tyr 200	Val	Asp	Gln	Ile	Pro 205	Lys	Ala	Ala
Lys	Gly 210	Thr	Val	Gly	Ser	11e 215	Leu	Asp	Arg	Lys	Asp 220	Glu	Thr	Lys	Thr
Gln 225	Ala	Ile	Val	Cys	G1n 230	Gln	Leu	Asp	Leu	Thr 235	His	Leu	Lys	Glu	Arg 240
Asn	Val	Glu	Asp	Leu 245	Ser	Gly	Gly	Glu	Leu 250	Gln	Arg	Phe	Ala	Cys 255	Ala
Val	Val	Cys	Ile 260	Gln	Lys	Ala	Asp	Ile 265	Phe	Met	Phe	Asp	Glu 270	Pro	Ser
Ser	Tyr	Leu 275	Asp	Val	Lys	Gln	Arg 280	Leu	Lys	Ala	Ala	Ile 285	Thr	Ile	Arg
Ser	Leu 290	Ile	Asn	Pro	Asp	Arg 295	Tyr	Ile	Ile	Val	Val 300	Glu	His	Asp	Leu
ser 305	Val	Leu	Asp	Tyr	Leu 310	Ser	Asp	Phe	Ile	Cys 315	Cys	Leu	Туг	Gly	Va1 320
Pro	Ser	Ala	Tyr	Gly 325	Val	Val	Thr	Met	Pro 330	Phe	Ser	Val	Arg	Glu 335	Gly
Ile	Asn	Ile	Phe 340	Leu	Asp	Gly	Tyr	Val 345	Pro	Thr	Glu	Asn	Leu 350	Arg	Phe

Arg	Asp	Ala 355	Ser	Leu	Val	Phe	Lys 360	Val	Ala	Glu	Thr	Ala 365	Asn	Glu	Glu
Glu	Val 370	Lys	Lys	Met	Cys	Met 375	туг	Lys	Tyr	Pro	Gly 380	Met	Lys	Lys	Lys
Met 385	Gly	Glu	Phe	Glu	Leu 390	Ala	Ile	Val	Ala	Gly 395	Glu	Phe	Thr	Asp	Ser 400
Glu	Ile	Met	Val	Met 405	Leu	Gly	Glu	Asn	Gly 410	Thr	Gly	Lys	Thr	Thr 415	Phe
Ile	Arg	Met	Leu 420	Ala	Gly	Arg	Leu	Lys 425	Pro	Asp	Glu	Gly	Gly 430	Glu	Val
Pro	Val	Leu 435	Asn	Val	Ser	Tyr	Lys 440	Pro	Gln	Lys	Ile	Ser 445	Pro	Lys	Ser
Thr	Gly 450	Ser	Val	Arg	Gln	Leu 455	Leu	His	Glu	Lys	11e 460	Arg	Asp	Ala	Tyr
Thr 465	His	Pro	Gln	Phe	Val 470	Thr	Asp	Val	Met	Lys 475	Pro	Leu	Gln	Ile	Glu 480
Asn	Ile	Ile	Asp	Gln 485	Glu	Val	Gln	Thr	Leu 490	Ser	Gly	Gly	Glu	Leu 495	Gln
Arg	Val	Ala	Leu 500	Ala	Leu	Cys	Leu	Gly 505	Lys	Pro	Ala	Asp	Val 510	Tyr	Leu
Ile	Asp	Glu 515	Pro	Ser	Ala	Tyr	Leu 520	Asp	Ser	Glu	Gln	Arg 525	Leu	Met	Ala
Ala	Arg 530	Val	Val	Lys	Arg	Phe 535	Ile	Leu	His	Ala	Lys 540	Lys	Thr	Ala	Phe
Val 545	Val	Glu	His	Asp	Phe 550	Ile	Met	Ala	Thr	Tyr 555	Leu	Ala	Asp	Arg	Val 560
Ile	Val	Phe	Asp	Gly 565	Val	Pro	Ser	Lys	Asn 570	Thr	Val	Ala	Asn	Ser 575	Pro
Gln	Thr	Leu	Leu 580	Ala	Gly	Met	Asn	Lys 585	Phe	Leu	Ser	Gln	Leu 590	Glu	Ile
Thr	Phe	Arg 595	Arg	Asp	Pro	Asn	Asn 600	Tyr	Arg	Pro	Arg	Ile 605	Asn	Lys	Leu
Asn	Ser	Ile	Lys	Asp	Val	Glu	Gln	Lys	Lys	Ser	Gly	Asn	Tyr	Phe	Phe

<400> 1518

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Leu Asp Asp
625
<210> 1517
<211> 104
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (93)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (94)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1517
Ala Pro Gln Pro Pro Pro Thr Gly Gln Ser Asp Tyr Thr Lys Ala Trp
Glu Glu Tyr Tyr Lys Lys Ile Gly Gln Gln Pro Gln Gln Pro Gly Ala
             20
                                 25
Pro Pro Gln Gln Asp Tyr Thr Lys Ala Trp Glu Glu Tyr Tyr Lys Lys
        35
                            40
Gln Ala Gln Val Ala Thr Gly Gly Val Gln Glu Leu Pro Gln Ala Pro
Ser Gln Thr Thr Val Pro Pro Gly Glu Tyr Tyr Arg Gln Gln Ala Ala
                                        75
Tyr Tyr Gly Gln Thr Pro Gly Pro Gly Pro Gln Xaa Xaa Pro Thr
                85
                                    90
Gln Gln Gly Gln Gln Ala Gln
            100
<210> 1518
<211> 149
<212> PRT
<213> Homo sapiens
```

His Met Thr Thr Val Ser Pro Asp Cys Val Glu Cys Met Ala Cys Ser

1 5 10 15

Asp Asn Thr Val Arg Ala Gly Leu Thr Pro Lys Phe Ile Asp Val Pro $20 \\ 25 \\ 30$

Thr Leu Cys Glu Met Leu Ser Tyr Thr Pro Ser Ser Ser Lys Asp Arg 35 40 45

Leu Phe Leu Pro Thr Arg Ser Gln Glu Asp Pro Tyr Leu Ser Ile Tyr 50 55 60

Asp Pro Pro Val Pro Asp Phe Thr Ile Met Lys Thr Glu Val Pro Gly $65 \ \ 70 \ \ 75 \ \ 80$

Ser Val Thr Glu Tyr Lys Val Leu Ala Leu Asp Ser Ala Ser Ile Leu $85 \hspace{1cm} 90 \hspace{1cm} 95$

Leu Met Val Gln Gly Thr Val Ile Ala Ser Thr Pro Thr Thr Gln Thr 100 105 110

Pro Ile Pro Leu Gln Arg Gly Gly Val Leu Phe Ile Gly Ala Asn Glu 115 120 125

Ser Val Ser Leu Lys Leu Thr Glu Pro Lys Asp Leu Leu Ile Phe Arg 130 135 140

Ala Cys Cys Leu Leu 145

<210> 1519

<211> 616

<211> 010 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (262)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1519

Ser Trp Gln Val Gln Gly Pro Pro Pro Arg Glu Xaa Cys Pro Ser Cys
1 5 10 15

Thr Gln Ser Ala Ile Arg Gly Ser Cys Thr Leu Leu Leu Arg Ala Gly

	20	25	30
Glu Asp Ser 2	Ala Asp Gln	Gly Arg Gly Gln 40	Gln Gln His Phe His Phe 45
His Thr Ser :	Ile Phe Leu	Arg Gly Pro Pro 55	Gly Ser Ser Pro Gln Pro
Ala Pro Leu A	Arg Leu Arg	Asp Trp Ala Leu	Cys Leu Gly Leu His Asn
65	70		75 80
Phe Val Ser 1	Pro Asn Trp	Leu Ser Arg Thr	Tyr Ser Ser His Val Ser
	85	90	95
	Gly Gln Ala	Met Glu Ile Gly	Ser Ala Ala Leu Thr Ile
	100	105	110
Leu Val Glu (Cys Trp Asp	Gly His Leu Thr 120	Pro Pro Glu Val Ala Ser 125
Leu Ala Asp 1		Arg Ala Arg Asp	Ser Asn Met Val Arg Ala
130		135	140
Ala Ala Glu I	Leu Ala Leu	Ser Cys Leu Pro	His Ala His Ala Leu Asn
145	150		155 160
Pro Asn Glu I	ile Gln Arg .	Ala Leu Val Gln	Cys Lys Glu Gln Asp Asn
	165	170	175
	Glu Lys Ala	Cys Met Ala Val	Glu Glu Ala Ala Lys Gly
	180	185	190
Gly Gly Val 1	Tyr Pro Glu	Val Leu Phe Glu 200	Val Ala His Gln Trp Phe 205
Trp Leu Tyr 0		Ala Gly Gly Ser	Ser Thr Ala Arg Glu Gly
210		215	220
Ala Thr Ser C	Cys Ser Ala : 230	Ser Gly Ile Arg	Ala Gly Gly Glu Ala Gly 235 240
Arg Gly Met F	Pro Glu Gly 2	Arg Gly Gly Pro	Gly Thr Glu Pro Val Thr
	245	250	255
	ala Gln Xaa :	Thr Ala Ala Ala	Thr Val Val Pro Val Ile
	160	265	270
Ser Val Gly S	er Ser Leu :	Tyr Pro Gly Pro	Gly Leu Gly His Gly His
275		280	285
Ser Pro Gly L	eu His Pro '	Tyr Thr Ala Leu	Gln Pro His Leu Pro Cys

	290					295					300				
Ser 305	Pro	Gln	Tyr	Leu	Thr 310	His	Pro	Ala	His	Pro 315	Ala	His	Pro	Met	Pro 320
His	Met	Pro	Arg	Pro 325	Ala	Val	Phe	Pro	Val 330	Pro	Ser	Ser	Ala	Tyr 335	Pro
Gln	Gly	Val	His 340	Pro	Ala	Phe	Leu	Gly 345	Ala	Gln	Tyr	Pro	Tyr 350	Ser	Val
Thr	Pro	Pro 355	Ser	Leu	Ala	Ala	Thr 360	Ala	Val	Ser	Phe	Pro 365	Val	Pro	Ser
Met	Ala 370	Pro	Ile	Thr	Val	His 375	Pro	туг	His	Thr	Glu 380	Pro	Gly	Leu	Pro
Leu 385	Pro	Thr	Ser	Val	Ala 390	Leu	Ser	Ser	Val	His 395	Pro	Ala	Ser	Thr	Phe 400
Pro	Ala	Ile	Gln	Gly 405	Ala	Ser	Leu	Pro	Ala 410	Leu	Thr	Thr	Gln	Pro 415	Ser
Pro	Leu	Val	Ser 420	Gly	Gly	Phe	Pro	Pro 425	Pro	Glu	Glu	Glu	Thr 430	His	Ser
Gln	Pro	Val 435	Asn	Pro	His	Ser	Leu 440	His	His	Leu	His	Ala 445	Ala	Tyr	Arg
Val	Gly 450	Met	Leu	Ala	Leu	Glu 455	Met	Leu	Gly	Arg	Arg 460	Ala	His	Asn	Asp
His 465	Pro	Asn	Asn	Phe	Ser 470	Arg	Ser	Pro	Pro	Tyr 475	Thr	Asp	Asp	Val	Lys 480
Trp	Leu	Leu	Gly	Leu 485	Ala	Ala	Lys	Leu	Gly 490	Val	Asn	Tyr	Val	His 495	Gln
Phe	Сув	Val	Gly 500	Ala	Ala	Lys	Gly	Val 505	Leu	Ser	Pro	Phe	Val 510	Leu	Gln
Glu	Ile	Val 515	Met	Glu	Thr	Leu	Gln 520	Arg	Leu	Ser	Pro	Ala 525	His	Ala	His
Asn	His 530	Leu	Arg	Ala	Pro	Ala 535	Phe	His	Gln	Leu	Val 540	Gln	Arg	Cys	Gln
Gln 545	Ala	Tyr	Met	Gln	Tyr 550	Ile	His	His	Arg	Leu 555	Ile	His	Leu	Thr	Pro 560
Ala	Asp	Tyr	Asp	Asp	Phe	Val	Asn	Ala	Ile	Arg	Ser	Ala	Arg	Ser	Ala

565 570 575

Phe Cys Leu Thr Pro Met Gly Met Met Gln Phe Asn Asp Ile Leu Gln 580 585 590

Asn Leu Lys Arg Ser Lys Gln Thr Lys Glu Leu Trp Gln Arg Val Ser 595 600 605

Leu Glu Met Ala Thr Phe Ser Pro 610 615

<210> 1520 <211> 159

<212> PRT

<213> Homo sapiens

<400> 1520

Glu Gly Ser Arg Pro Pro Leu Cys Arg Ser Cys Ile Ser Ala Glu Ser $1 \ 5 \ 10 \ 15$

Val Phe Gln Pro Gln Leu Val Ala Pro Leu Ala Pro Leu Leu Pro Asp 20 25 30

Gly His Val Phe Val Thr Leu Glu Asn Lys Gln Pro His Thr His Phe

Phe Phe Ser Phe Lys Thr Val Thr Trp Lys Tyr Glu Lys Ala Arg Arg 50 \$50\$

Arg Ser Lys Gly Cys Phe Leu Glu Trp Leu Arg Cys Cys Pro Ala Val 65 70 75 80

Val Ile Val Phe Ser Thr Gly Leu Phe Pro Phe Ile Ser Cys Gly Thr 85 90 95

Glu Ser Leu Leu Pro Pro Leu Leu Gly Ser Pro Gly Gly Pro Trp Pro 100 100 105 110

Pro Phe Arg Leu Ser Lys Lys Pro Thr Thr Leu Glu Ile Phe Phe Leu 115 \$120\$

Glu Phe Arg Cys Phe Leu Leu Leu Pro Leu Asp Lys Lys Gln Leu Lys 130 135 140

Arg Pro Tyr Leu Arg Asp Glu Lys Asn Met His Ile Asn Ser Ile 145 150 155

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<210> 1521
<211> 129
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids
Glu Trp Ala Glu Cys Arg Gly Gln Leu Val Gln Xaa Ser Arg Pro Glu
                                     10
Val Ser Ala Gly Ser Leu Leu Leu Pro Ala Pro Gln Ala Glu Asp His
Ser Ser Arg Ile Leu Tyr Pro Arg Pro Lys Ser Leu Leu Pro Lys Met
                            40
Met Asn Ala Asp Met Asp Ala Val Asp Ala Glu Asn Gln Val Glu Leu
     50
Glu Glu Lys Thr Arg Leu Ile Asn Gln Val Leu Glu Leu Gln His Thr
Leu Glu Asp Leu Ser Ala Arg Val Asp Ala Val Lys Glu Glu Asn Leu
Lys Leu Lys Ser Glu Asn Gln Val Leu Gly Gln Tyr Ile Glu Asn Leu
            100
Met Ser Ala Ser Ser Val Phe Gln Thr Thr Asp Thr Lys Ser Lys Arg
                            120
Lys
<210> 1522
<211> 109
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<221> SITE

<222> (70)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (80)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1522

Ala Gly Thr Glu Pro Gly Val Lys Cys Ser Ala Lys Val His Asp Pro 5 10

Leu Arg Ser His Trp Ala Asp Leu Thr Ser Asp Ser Leu Val Val Gln

Met Pro Cys Ala Ala Phe Pro Glu Ala Ile Gly Gly Leu Pro Ala Ala

Glu Ile Tyr Ala Gly His Pro Leu Asn Xaa Cys His Ser Lys Gly Gly 55

Pro Arg Cys Ser Ser Xaa Ser Phe Thr Cys Gly Gly Val Gly Glu Xaa 65 75

Ala Val Ser Glu Met Gln Val Pro Arg Ser His Pro Gly Leu Leu Lys

Gly Cys Gly Ile Cys Val Ser Asp Ala Tyr Tyr Asn Met

<210> 1523

<211> 53

<212> PRT

<213> Homo sapiens

<400> 1523

Gly Thr Ser Ser Cys Leu Ser Leu Pro Glu Tyr Trp Asp Tyr Arg Leu

Phe Leu Phe Lys His Lys Ser Phe Lys Leu Val Leu Thr Leu Tyr Ser 25

Ala Leu Asp Cys Phe Ser Phe Cys Ser Val Ile Met Ser Leu Val Gly 35 40

Asp Ile Leu His Arg 50

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<210> 1524
<211> 111
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (107)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1524
Ile Leu Asn Val Lys Ile Ile Asp Leu Asp Ile Glu Ser Ile Ser Asp
Ser Arg Asp Thr Pro Ile Cys Leu Lys Gln Pro Lys Met Tyr Trp Leu
Trp Asn His Val Leu Asp Arg Phe Leu Arg Pro Val Ser Ser Asn Leu
                           40
Asp Thr Val Phe Lys Gly Gly Leu Leu Thr Cys Thr Val Gly Gln Ile
    50
                        55
Ile Gln Ile Tyr Leu Arg Leu Gly Lys Lys Val Ile Cys Asp Phe Ala
65
                    70
Gly Arg Ala Phe Ala Lys Trp Ser Thr Gly Ser Lys Arg Val Phe Leu
                                  90
Glu Arg Ala Ile Leu Ser Asn Glu Val Ser Xaa Arg Thr Leu Gly
           100
                             105
<210> 1525
<211> 253
<212> PRT
<213> Homo sapiens
<400> 1525
Leu Ser Gln Arg Gln Asp Gln Val Pro Arg Leu Pro Val Gln Lys Ser
                         10
Arg Gln Glu Ser Pro Arg Ala Glu Glu Asn Pro Lys Trp Arg Glu Gly
            20
```

Lys Lys Glu Thr Ser Glu Ser Ser Val Gln Lys Ala Gly Arg Ala Ala

45

40

35

Ala	Ala 50	Gln	Ala	Gly	Ala	Ala 55	Ala	Ser	Arg	Val	Pro 60	Gly	Leu	Ser	Gly
ser 65	Asn	Leu	Ala	Pro	Cys 70	Asn	Lys	Gly	Arg	Leu 75	Ser	Ala	Arg	G1u	Asp 80
Va1	Ser	Asn	Ser	Lys 85	Met	Gln	Ala	Gln	Gln 90	Tyr	Gln	Gln	Gln	Arg 95	Arc
Lys	Phe	Ala	Ala 100	Ala	Phe	Leu	Ala	Phe 105	Ile	Phe	Ile	Leu	Ala 110	Ala	Val
Asp	Thr	Ala 115	Glu	Ala	Gly	Lys	Lys 120	Glu	Lys	Pro	Glu	Lys 125	Lys	Val	Lys
Lys	ser 130	Asp	Суз	Gly	Glu	Trp 135	Gln	Trp	Ser	Val	Cys 140	Val	Pro	Thr	Ser
Gly 145	Asp	Cys	Gly	Leu	Gly 150	Thr	Arg	Glu	Gly	Thr 155	Arg	Thr	Gly	Ala	Glu 160
Cys	Lys	Gln	Thr	Met 165	Lys	Thr	Gln	Arg	Cys 170	Lys	Ile	Pro	Cys	Asn 175	Trp
Lys	Lys	Gln	Phe 180	Gly	Ala	Glu	Cys	Lys 185	Tyr	Gln	Phe	Gln	Ala 190	Trp	Gly
Glu	Cys	Asp 195	Leu	Asn	Thr	Ala	Leu 200	Lys	Thr	Arg	Thr	G1y 205	Ser	Leu	Lys
Arg	Ala 210	Leu	His	Asn	Ala	Glu 215	Cys	Gln	Lys	Thr	Val 220	Thr	Ile	Ser	Lys
Pro 225	Cys	Gly	Lys	Leu	Thr 230	Lys	Pro	Lys	Pro	Gln 235	Ala	Glu	Ser	Lys	Lys 240
Lys	Lys	Lys	Glu	Gly	Lys	Lys	Gln	Glu	Lys	Met	Leu	Asp			

<210> 1526 <211> 93

<212> PRT <213> Homo sapiens

245

<400> 1526

Pro Cys Thr Lys Arg Asn Gly Asp Cys Leu Tyr Pro Pro Arg Phe Ile 1 5 10 15

250

Ser Trp Pro Glu Val Ile Leu Ala Ser Arg Lys Gly Cys Thr Ser Ser

20 25 30

His His Gln Leu Gln Arg Met Ala Ala Ile Tyr Leu Ser Arg Gly Phe 35 40 45

Phe Ser Arg Glu Pro Ile Cys Pro Phe Glu Glu Lys Thr Lys Val Glu 50 60

Arg Met Val Glu Asp Tyr Leu Ala Ser Gly Tyr Gln Val Ser Arg Lys 65 70 75 80

Arg Thr Val Val Lys Asn Asp Met Leu Ser Ser Asn Arg

<210> 1527

<211> 276

<212> PRT

<213> Homo sapiens

<400> 1527

Phe Phe Ile Asp His Asn Thr Lys Thr Thr Thr Trp Glu Asp Pro Arg $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Lys Phe Pro Val His Met Arg Ser Lys Thr Ser Leu Asn Pro Asn

Asp Leu Gly Pro Leu Pro Pro Gly Trp Glu Glu Arg Ile His Leu Asp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Arg Thr Phe Tyr Ile Asp His Asn Ser Lys Ile Thr Gln Trp Glu 50 55 60

Asp Pro Arg Leu Gln Asn Pro Ala Ile Thr Gly Pro Ala Val Pro Tyr $65 \hspace{1cm} 70 \hspace{1cm} 75 \hspace{1cm} 80 \hspace{1cm}$

Ser Arg Glu Phe Lys Gln Lys Tyr Asp Tyr Phe Arg Lys Lys Leu Lys 85 90 95

Lys Pro Ala Asp Ile Pro Asn Arg Phe Glu Met Lys Leu His Arg Asn $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$

Asn Ile Phe Glu Glu Ser Tyr Arg Arg Ile Met Ser Val Lys Arg Pro \$115\$ \$120\$ \$125\$

Asp Val Leu Lys Ala Arg Leu Trp Ile Glu Phe Glu Ser Glu Lys Gly 130 \$135\$

Leu Asp Tyr Gly Gly Val Ala Arg Glu Trp Phe Phe Leu Leu Ser Lys 145 150 155 160

Glu Met Phe Asn Pro Tyr Tyr Gly Leu Phe Glu Tyr Ser Ala Thr Asp 165 170 175

Asn Tyr Thr Leu Gln Ile Asn Pro Asn Ser Gly Leu Cys Asn Glu Asp

His Leu Ser Tyr Phe Thr Phe Ile Gly Arg Val Ala Gly Leu Ala Val

Phe His Gly Lys Leu Leu Asp Gly Phe Phe Ile Arg Pro Phe Tyr Lys 210 215 220

Met Met Leu Gly Lys Gln Ile Thr Leu Asn Asp Met Glu Ser Val Asp 225 230 235

Ser Glu Tyr Tyr Asn Ser Leu Lys Trp Ile Leu Glu Asn Asp Pro Thr \$245\$

Glu Leu Asp Leu Met Phe Cys Ile Asp Glu Glu Asn Phe Gly Gln Thr 260 265

Ser Thr Gly Arg 275

<210> 1528

<211> 307

<212> PRT

<213> Homo sapiens

<400> 1528

Val Met Asp Leu Val Leu Arg Val Ala Asp Tyr Tyr Phe Phe Thr Pro 1 5 10 15

Tyr Val Tyr Pro Ala Thr Trp Pro Glu Asp Asp Ile Phe Arg Gln Ala \$20\$ \$25\$ \$30\$

Ile Ser Leu Leu Ile Val Thr Asn Val Gly Ala Tyr Ile Leu Tyr Phe

Phe Cys Ala Thr Leu Ser Tyr Tyr Phe Val Phe Asp His Ala Leu Met 50 60

Lys His Pro Gln Phe Leu Lys Asn Gln Val Arg Arg Glu Ile Lys Phe 65 70 75 80

Thr Val Gln Ala Leu Pro Trp Ile Ser Ile Leu Thr Val Ala Leu Phe
85 90 95

Leu Leu Glu Ile Arg Gly Tyr Ser Lys Leu His Asp Asp Leu Gly Glu 100 105 110

Phe Pro Tyr Gly Leu Phe Glu Leu Val Val Ser Ile Ile Ser Phe Leu 115 120 125

Phe Phe Thr Asp Met Phe Ile Tyr Trp Ile His Arg Gly Leu His His 130 135 140

Arg Leu Val Tyr Lys Arg Leu His Lys Pro His His Ile Trp Lys Ile 145 \$150\$

Pro Thr Pro Phe Ala Ser His Ala Phe His Pro Ile Asp Gly Phe Leu 165 $$170\$

Gln Ser Leu Pro Tyr His Ile Tyr Pro Phe Ile Phe Pro Leu His Lys \$180\$ \$185\$

Val Val Tyr Leu Ser Leu Tyr Ile Leu Val Asn Ile Trp Thr Ile Ser 195 200 205

Ile His Asp Gly Asp Phe Arg Val Pro Gln Ile Leu Gln Pro Phe Ile 210 215 220

Asn Gly Ser Ala His His Thr Asp His His Met Phe Phe Asp Tyr Asn 225 230 235 240

Tyr Gly Gln Tyr Phe Thr Leu Trp Asp Arg Ile Gly Gly Ser Phe Lys 245 250 255

Asn Pro Ser Ser Phe Glu Gly Lys Gly Pro Leu Ser Tyr Val Lys Glu 260 265 270

Met Thr Glu Gly Lys Arg Thr Ala Ile Gln Glu Met Ala Val Arg Met 275 280 285

Lys Asn Tyr Ser Met Glu Ser Leu Gln Arg Leu Asn Arg Leu Leu Pro 290 295 300

Ser Tyr Ser 305

<210> 1529

<211> 233 <212> PRT

<213> Homo sapiens

<400> 1529

Thr Pro Tyr Ala Ser Leu Pro Met Gln Thr Ile Gln Glu Asn Lys Pro

10

Ala Thr Phe Ser Ser Met Ser His Tyr Gly Asn Gln Thr Leu Gln Asp 25 Leu Leu Thr Ser Asp Ser Leu Ser His Ser Asp Val Met Met Thr Gln Ser Asp Pro Leu Met Ser Gln Ala Ser Thr Ala Val Ser Ala Gln Asn 50 55 Ser Arg Arg Asn Val Met Leu Arg Asn Asp Pro Met Met Ser Phe Ala Ala Gln Pro Asn Gln Gly Ser Leu Val Asn Gln Asn Leu Leu His His 90 Gln His Gln Thr Gln Gly Ala Leu Gly Gly Ser Arg Ala Leu Ser Asn 100 105 Ser Val Ser Asn Met Gly Leu Ser Glu Ser Ser Ser Leu Gly Ser Ala 120 115 Lys His Gln Gln Gln Ser Pro Val Ser Gln Ser Met Gln Thr Leu Ser

Asp Ser Leu Ser Gly Ser Ser Leu Tyr Ser Thr Ser Ala Asn Leu Pro 150 155 Val Met Gly His Glu Lys Phe Pro Ser Asp Leu Asp Leu Asp Met Phe

135

Asn Gly Ser Leu Glu Cys Asp Met Glu Ser Ile Ile Arg Ser Glu Leu 185

Met Asp Ala Asp Gly Leu Asp Phe Asn Phe Asp Ser Leu Ile Ser Thr 200

Gln Asn Val Val Gly Leu Asn Val Gly Asn Phe Thr Gly Ala Lys Gln 210 215

Ala Ser Ser Gln Ser Trp Val Pro Gly 225 230

180

<210> 1530

<211> 363

<212> PRT

<213> Homo sapiens

<220> <221> SITE <222> (178) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (179) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1530 Ala His Arg Leu Leu Val His Arg Asp Val Cvs His His Val Ser Ser 10 Glu Val Gln Phe Gly His Ala Gly Ala Cys Ala Asn Gln Ala Ser Glu Thr Ala Val Ala Lys Asn Gln Ala Leu Lys Glu Ala Gly Val Phe Val 40 45 Pro Arg Ser Phe Asp Glu Leu Gly Glu Ile Ile Gln Ser Val Tyr Glu 55 Asp Leu Val Ala Asn Gly Val Ile Val Pro Ala Gln Glu Val Pro Pro Pro Thr Val Pro Met Asp Tyr Ser Trp Ala Arg Glu Leu Gly Leu Ile 90 Arg Lys Pro Ala Ser Phe Met Thr Ser Ile Cys Asp Glu Arg Gly Gln 100 105 Glu Leu Ile Tyr Ala Gly Met Pro Ile Thr Glu Val Phe Lys Glu Glu 115 120 Met Gly Ile Gly Gly Val Leu Gly Leu Trp Phe Gln Lys Arg Leu 135 Pro Lys Tyr Ser Cys Gln Phe Ile Glu Met Cys Leu Met Val Thr Ala 145 150 155 160 Asp His Gly Pro Ala Val Ser Gly Ala His Asn Thr Ile Ile Cys Ala 165 Arg Xaa Xaa Lys Asp Leu Val Ser Ser Leu Thr Ser Gly Leu Leu Thr 185 Ile Gly Asp Arg Phe Gly Gly Ala Leu Asp Ala Ala Ala Lys Met Phe 195 200

Ser Lys Ala Phe Asp Ser Gly Ile Ile Pro Met Glu Phe Val Asn Lys

210 215 220	
Met Lys Lys Glu Gly Lys Leu Ile Met Gly Ile Gly H 225 230 235	is Arg Val Lys 240
Ser Ile Asn Asn Pro Asp Met Arg Val Gln Ile Leu L 245 250	ys Asp Tyr Val 255
Arg Gln His Phe Pro Ala Thr Pro Leu Leu Asp Tyr A 260 265	la Leu Glu Val 270
Glu Lys Ile Thr Thr Ser Lys Lys Pro Asn Leu Ile L 275 280 2	eu Asn Val Asp 85
Gly Leu Ile Gly Val Ala Phe Val Asp Met Leu Arg A 290 295 300	sn Cys Gly Ser
Phe Thr Arg Glu Glu Ala Asp Glu Tyr Ile Asp Ile G 305 310 315	ly Ala Leu Asn 320
Gly Ile Phe Val Leu Gly Arg Ser Met Gly Phe Ile G 325 330	ly His Tyr Leu 335
Asp Gln Lys Arg Leu Lys Gln Gly Leu Tyr Arg His P 340 345	ro Trp Asp Asp 350
Ile Ser Tyr Val Leu Pro Glu His Met Ser Met 355 360	
<210> 1531	
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<220> <221> SITE <222> (358) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1531 Ser Val Ser Ala Ser Glu Val Thr Ser Thr Val Tyr Asn Thr Val Ser 5 10 15 Glu Gly Thr His Phe Leu Glu Thr Ile Glu Thr Pro Arg Pro Gly Lys Leu Phe Pro Lys Asp Val Ser Ser Ser Thr Pro Pro Ser Val Thr Ser 40 Lys Ser Arg Val Ser Arg Leu Ala Gly Arg Lys Thr Asn Glu Ser Val 50 55 60 Ser Glu Pro Arg Lys Gly Phe Met Tyr Ser Arg Asn Thr Asn Glu Asn Pro Gln Glu Cys Phe Asn Ala Ser Lys Leu Leu Thr Ser His Gly Met 90 Gly Ile Gln Val Pro Leu Asn Ala Thr Glu Phe Asn Tyr Leu Cys Pro 100 Ala Ile Ile Asn Gln Ile Asp Ala Arg Ser Cys Leu Ile His Thr Ser 115 120 Glu Lys Lys Ala Glu Ile Pro Pro Lys Thr Tyr Ser Leu Gln Ile Ala 135 Trp Val Gly Gly Phe Ile Ala Ile Ser Ile Ile Ser Phe Leu Ser Leu 145 150 155 Leu Gly Val Ile Leu Val Pro Leu Met Asn Arg Val Phe Phe Lys Phe 165 Leu Leu Xaa Xaa Xaa Val Ala Leu Ala Val Gly Thr Leu Ser Gly Asp 185 180 Ala Phe Leu His Leu Leu Pro His Ser His Ala Ser His His Ser 200

Ser His Leu Ser Ser Gln Asn Ile Glu Glu Ser Ala Tyr Phe Asp Ser 225 230 235

His Ser His Glu Glu Pro Ala Met Glu Met Lys Arg Gly Pro Leu Phe

215

210

Thr Trp Lys Gly Leu Thr Ala Leu Gly Gly Leu Tyr Phe Met Phe Leu 245 250 255

Val Glu His Val Leu Thr Leu Ile Lys Gln Phe Lys Asp Lys Lys 260 265 270

Lys Asn Gln Lys Lys Pro Glu Asn Asp Asp Asp Val Glu Ile Lys Lys 275 280 285

Gln Leu Ser Lys Tyr Glu Ser Gln Leu Ser Thr Asn Glu Glu Lys Val 290 295 300

Asp Thr Asp Asp Arg Thr Glu Gly Tyr Leu Arg Ala Asp Ser Gln Glu 305 \$310\$

Pro Ser His Phe Asp Ser Gln Gln Pro Ala Val Leu Glu Glu Glu Glu Glu 325 330 335

Val Met Ile Ala His Ala His Pro Gln Glu Val Tyr Asn Glu Tyr Val 340 345 350

Pro Arg Gly Cys Lys Xaa Lys Cys His Ser His Phe His Asp Thr Leu $355 \hspace{1cm} 360 \hspace{1cm} 365$

Gly Gln Ser Asp Asp Leu Ile His His His His Asp Phe Phe Lys Lys $370 \hspace{1.5cm} 375 \hspace{1.5cm} 380$

Lys Lys Lys Lys Lys Ite Lys Lys Lys Gln Lys Lys 385 390 395

<210> 1532

<211> 130

<212> PRT

<213> Homo sapiens

<400> 1532

Val Trp His Phe Ile Leu Phe Leu Cys Cys Trp Leu Cys Ile Leu Glu $1 \ 5 \ 10 \ 15$

Gly Lys Leu Leu Lys Gln Thr Ser Gln Phe Phe Phe Leu Phe Ser 20 25 30

Asn Tyr Pro Val Gly Asn Ser Gln Tyr Gly Gln Gln Gln Asp Ala Tyr 35 40 45

Gln Gly Pro Pro Pro Gln Gln Gly Tyr Pro Pro Gln Gln Gln Tyr $50 \\ \mbox{55} \\ \mbox{60}$

Pro Gly Gln Gln Gly Tyr Pro Gly Gln Gln Gln Gly Tyr Gly Pro Ser

65 7.0 7.5 80 Gln Gly Gly Pro Gly Pro Gln Tyr Pro Asn Tyr Pro Gln Gly Gln Gly Gln Gln Tyr Gly Gly Tyr Arg Pro Thr Gln Pro Gly Pro Pro Gln Pro 105 Pro Gln Gln Arg Pro Tyr Gly Tyr Asp Gln Gly Gln Tyr Gly Asn Tyr 115 120 125 Gln Gln 130 <210> 1533 <211> 53 <212> PRT <213> Homo sapiens <400> 1533 Ala Ile Leu Asp Leu Tyr Asn Pro Leu Asp Ala Ser Ala Tyr Arg Phe 5 10 Lys Met His Pro Val Val Phe Val Ala Phe Ser Ile Leu Ser Phe Leu 20 25 Met Cys Pro Ile Asn Lys Gln Phe Tyr Leu Lys Phe Lys Lys Lys 40 Lys Lys Lys Arg 50 <210> 1534 <211> 93 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (14) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (81) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 1534 Gly Ala Ser Ala Arg Pro Pro Glu Arg Gly Pro His Pro Xaa Ala Ala Arg Asp Pro Arg Gly Pro Pro Leu Pro Leu Ser Phe Ser Ser Ala Pro Thr Asp Thr Phe His Ser Glu Val Ser Pro Ser Pro Leu Leu Lys Ser 40 Pro Arg Ser Pro Leu His Pro Glu Val Ser Leu Tyr Arg Asp Pro Pro 55 Ser Phe His Pro Glu Asp Arg Pro Asn Pro Arg Ser Pro Pro Leu Ser 65 70 75 Xaa Ser Glu Arg Ala Ser Phe Gly Pro Lys Gln Pro Gly <210> 1535 <211> 150 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (75) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (83) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (106) <223> Xaa equals any of the naturally occurring L-amino acids <400> 1535 Pro Glu Ser Leu Gly Gly Ser Pro Gly Pro Pro Arg Pro Arg Gln Ser 10

Cys Ser Glu Thr Ser Val Val Leu Lys Cys His Ser Pro Arg Pro Gly
20 25 30

Arg His Arg Ser Pro Glu Ser Tro Ala Leu Clv Thr Leu Glu Ala Ala

Arg His Arg Ser Pro Glu Ser Trp Ala Leu Gly Thr Leu Glu Ala Ala 35 40 45 Ala Pro Gly Thr Arg Gly Arg Pro Gly Ala Gly Glu Leu Arg Cys Trp
50 55 60

Glu Arg Ala Val Phe Ala Asp Ser Gly Gly Xaa Gly Gly Ser Arg Pro 65 70 75 80

Gly Ser Xaa Pro Gly Met Thr Met Leu Met Glu Leu Met Gly Glu Glu $85 \hspace{1cm} 90 \hspace{1cm} 95 \hspace{1cm}$

Trp Glu Arg Arg Ser Ala Ala Phe Cys Xaa Cys Ala Ser Ile Ala Lys 100 105 110

Phe His Ser Pro Ser Ser Ala Ala Leu Leu Leu Ala Cys Gly Ser Pro 115 120 125

Arg Tyr Asn Phe Trp Ser Cys Leu Phe Leu Leu Met Ser Phe Thr Val 130 $$135\$

Asn Lys Phe Asp Cys His 145 150

<210> 1536

<211> 74

<212> PRT

<213> Homo sapiens

<400> 1536

Leu Thr Tyr Ser Lys Asn Ala Pro Ile Leu Ser Asn Ser Met Pro Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Asp Lys Cys Ser Val Pro Met Pro Arg Pro Pro Gln Ser Arg Glu Asn \$20\$ \$25\$ \$30

Ile Phe Ile Thr Pro Glu Gly Leu Leu Cys Ser Glu Tyr Ser Leu Gly 35 40 45

Val Pro Ala Ala Gly Asp Ile Asp Leu Phe Ser Val Thr Val Asp Glu 50 60

Ile Cys Leu Leu Tyr Thr Ile Phe Lys Asn 65 70

<210> 1537

<211> 224

<212> PRT

<213> Homo sapiens

<400> 1537

Gly Thr Ser Arg Pro Val Ala Pro Glu Cys Thr Glu Asp Gly Gly Cys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Cys Arg Thr Val Ala Pro Ser Val Gly Ser Ser Cys His Ala Pro Ala 20 25 30

Val Thr Gln His Ala Pro Tyr Phe Lys Gly Thr Ala Val Val Asn Gly

Glu Phe Lys Asp Leu Ser Leu Asp Asp Phe Lys Gly Lys Tyr Leu Val 50 55 60

Leu Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys Pro Thr Glu Ile 65 70 75

Val Ala Phe Ser Asp Lys Ala Asn Glu Phe His Asp Val Asn Cys Glu 85 90 95

Val Val Ala Val Ser Val Asp Ser His Phe Ser His Leu Ala Trp Ile 100 \$105\$

Asn Thr Pro Arg Lys Asn Gly Gly Leu Gly His Met Asn Ile Ala Leu 115 120 125

Leu Ser Asp Leu Thr Lys Gln Ile Ser Arg Asp Tyr Gly Val Leu Leu 130 135 140

Glu Gly Ser Gly Leu Ala Leu Arg Gly Leu Phe Ile Ile Asp Pro Asn 145 150 155 160

Gly Val Ile Lys His Leu Ser Val Asn Asp Leu Pro Val Gly Arg Ser 165 170 175

Val Glu Glu Thr Leu Arg Leu Val Lys Ala Phe Gln Tyr Val Glu Thr 180 185 190

His Gly Glu Val Cys Pro Ala Asn Trp Thr Pro Asp Ser Pro Thr Ile \$195\$

Lys Pro Ser Pro Ala Ala Ser Lys Glu Tyr Phe Gln Lys Val Asn Gln 210 $$\rm 215$$

<210> 1538

<211> 524

<212> PRT

<213> Homo sapiens <400> 1538 Ser Ile Met Asn Ile Asn Asp Leu Lys Leu Thr Leu Ser Lys Ala Gly 10 Gln Glu His Leu Leu Arg Phe Trp Asn Glu Leu Glu Glu Ala Gln Gln Val Glu Leu Tyr Ala Glu Leu Gln Ala Met Asn Phe Glu Glu Leu Asn 40 Phe Phe Phe Gln Lys Ala Ile Glu Gly Phe Asn Gln Ser Ser His Gln Lys Asn Val Asp Ala Arg Met Glu Pro Val Pro Arg Glu Val Leu Gly 70 75 65 Ser Ala Thr Arg Asp Gln Asp Gln Leu Gln Ala Trp Glu Ser Glu Gly Leu Phe Gln Ile Ser Gln Asn Lys Val Ala Val Leu Leu Leu Ala Gly 105 Gly Gln Gly Thr Arg Leu Gly Val Ala Tyr Pro Lys Gly Met Tyr Asp 120 Val Gly Leu Pro Ser Arg Lys Thr Leu Phe Gln Ile Gln Ala Glu Arg 130 135 Ile Leu Lys Leu Gln Gln Val Ala Glu Lys Tyr Tyr Gly Asn Lys Cys 150 155 Ile Ile Pro Trp Tyr Ile Met Thr Ser Gly Arg Thr Met Glu Ser Thr 170 Lys Glu Phe Phe Thr Lys His Lys Tyr Phe Gly Leu Lys Lys Glu Asn 180 Val Ile Phe Phe Gln Gln Gly Met Leu Pro Ala Met Ser Phe Asp Gly 200 Lys Ile Ile Leu Glu Glu Lys Asn Lys Val Ser Met Ala Pro Asp Gly Asn Gly Gly Leu Tyr Arg Ala Leu Ala Ala Gln Asn Ile Val Glu Asp 225 230

Met Glu Gln Arq Gly Ile Trp Ser Ile His Val Tyr Cys Val Asp Asn

250

245

Ile	Leu	Val	Lys 260	Val	Ala	Asp	Pro	Arg 265	Phe	Ile	Gly	Phe	Cys 270	Ile	Gln
Lys	Gly	Ala 275	Asp	Cys	Gly	Ala	Lys 280	Val	Val	Glu	Lys	Thr 285	Asn	Pro	Thr
Glu	Pro 290	Val	Gly	Val	Val	Cys 295	Arg	Val	Asp	Gly	val 300	Tyr	Gln	val	Val
G1u 305	Tyr	Ser	Glu	Ile	ser 310	Leu	Ala	Thr	Ala	Gln 315	Lys	Arg	ser	Ser	Asp 320
Gly	Arg	Leu	Leu	Phe 325	Asn	Ala	Gly	Asn	Ile 330	Ala	Asn	His	Phe	Phe 335	Thr
Val	Pro	Phe	Leu 340	Arg	Asp	Val	Val	Asn 345	Val	Tyr	Glu	Pro	Gln 350	Leu	Gln
His	His	Val 355	Ala	Gln	Lys	Lys	Ile 360	Pro	Tyr	Val	Asp	Thr 365	Gln	Gly	Gln
Leu	Ile 370	Lys	Pro	Asp	Lys	Pro 375	Asn	Gly	Ile	Lys	Met 380	Glu	Lys	Phe	Val
Phe 385	Asp	Ile	Phe	Gln	Phe 390	Ala	Lys	Lys	Phe	Val 395	Val	Tyr	Glu	Val	Leu 400
Arg	Glu	Asp	Glu	Phe 405	Ser	Pro	Leu	Lys	Asn 410	Ala	Asp	Ser	Gln	Asn 415	Gly
Lys	Asp	Asn	Pro 420	Thr	Thr	Ala	Arg	His 425	Ala	Leu	Met	Ser	Leu 430	His	His
Cys	Trp	Val 435	Leu	Asn	Ala	Gly	Gly 440	His	Phe	Ile	Asp	Glu 445	Asn	Gly	ser
Arg	Leu 450	Pro	Ala	Ile	Pro	Arg 455	ser	Ala	Thr	Asn	Gly 460	Lys	ser	Glu	Thr
11e 465	Thr	Ala	Asp	Val	Asn 470	His	Asn	Leu	Lys	Asp 475	Ala	Asn	Asp	Val	Pro 480
Ile	Gln	Cys	Glu	Ile 485	Ser	Pro	Leu	Ile	ser 490	Tyr	Ala	Gly	Glu	Gly 495	Leu
Glu	Ser	Tyr	Val 500	Ala	Asp	Lys	Glu	Phe 505	His	Ala	Pro	Leu	Ile 510	Ile	Asp
Glu	ð.c.n	Glv	Val	Hie	Glu	Leu	va 1	Lvs	Agn	Glv	Tle				

WO 00/55174 1368 PCT/US00/05988

<210> 1539 <211> 336

<211> 330 <212> PRT

<213> Homo sapiens

<400> 1539

His Phe Ile Phe Leu Leu Lys Asn Phe Gln Gln Ser Ser Asn Asp Thr $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Phe Pro Thr Ala Met His Ile Ala Ala Ala Ile Glu Val His Glu Val 20 25 30

Leu Leu Pro Gly Leu Gln Lys Leu His Asp Ala Leu Asp Ala Lys Ser 35 40 45

Lys Glu Phe Ala Gln Ile Ile Lys Ile Gly Arg Thr His Thr Gln Asp 50 55 60

Ala Val Pro Leu Thr Leu Gly Gln Glu Phe Ser Gly Tyr Val Gln Gln 65 70 75 80

Val Lys Tyr Ala Met Thr Arg Ile Lys Ala Ala Met Pro Arg Ile Tyr 85 90 95

Glu Leu Ala Ala Gly Gly Thr Ala Val Gly Thr Gly Leu Asn Thr Arg 100 105 110

Ile Gly Phe Ala Glu Lys Val Ala Ala Lys Val Ala Ala Leu Thr Gly 115 120 125

Leu Pro Phe Val Thr Ala Pro Asn Lys Phe Glu Ala Leu Ala Ala His 130 135 140

Asp Ala Leu Val Glu Leu Ser Gly Ala Met Asn Thr Thr Ala Cys Ser 145 \$150\$

Leu Met Lys Ile Ala Asn Asp Ile Arg Phe Leu Gly Ser Gly Pro Arg 165 170 175

Ser Gly Leu Gly Glu Leu Ile Leu Pro Glu Asn Glu Pro Gly Ser Ser 180 185 190

Ile Met Pro Gly Lys Val Asn Pro Thr Gln Cys Glu Ala Met Thr Met 195 200 205

Val Ala Ala Gln Val Met Gly Asn His Val Ala Val Thr Val Gly Gly 210 215 220

Ser Asn Gly His Phe Glu Leu Asn Val Phe Lys Pro Met Met Ile Lys

225 230 235 240 Asn Val Leu His Ser Ala Arg Leu Leu Gly Asp Ala Ser Val Ser Phe 245 250 Thr Glu Asn Cys Val Val Gly Ile Gln Ala Asn Thr Glu Arg Ile Asn 265 Lys Leu Met Asn Glu Ser Leu Met Leu Val Thr Ala Leu Asn Pro His 280 Ile Gly Tyr Asp Lys Ala Ala Lys Ile Ala Lys Thr Ala His Lys Asn Gly Ser Thr Leu Lys Glu Thr Ala Ile Glu Leu Gly Tyr Leu Thr Ala 310 315 Glu Gln Phe Asp Glu Trp Val Lys Pro Lys Asp Met Leu Gly Pro Lys 330 <210> 1540 <211> 126 <212> PRT <213> Homo sapiens <400> 1540 Gly Val Val Lys Ser Leu Leu Phe Thr Arg Cys Asn Val Leu Val Pro 5 10 Tyr Lys Gln Gly Trp Gly Gly Glu Gly Arg Ala Lys Thr Asn Ile Glu

25 Ile Leu Lys Gln Gln Gln Ser Glu Trp Ile Leu Phe Phe Val Ile Val Gly Gly Leu Lys Asn Ser Pro His Val Ile Ile Val Asn Thr Leu Leu Cys Gly His Cys Asn Ile Trp Gly Val Gly Gln Gly Lys Val Thr

Ile Val His Met Ser Leu Ala Ser Val Gln Ser Ser Val Gln Asn Val

Met Leu Phe Cys Lys Lys Arg Phe Met Ile Phe Lys Ile Asn Leu Val 105

20

70

85

65

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Asn Leu Phe Leu Val Val Ile Phe Phe Leu Arg Gln Ser Phe
             120 125
<210> 1541
<211> 50
<212> PRT
<213> Homo sapiens
<400> 1541
Asn Ser Ala Arg Val Cys Ile Leu Ser Arg Asp Arg Val Ser Pro Cys
Trp Leu Gly Trp Cys Leu Ser Leu Asp Leu Val Ile His Pro Pro Gln
                     25
            20
Pro Pro Arg Val Leu Gly Leu Gln Val Arg Ala Thr Ala Pro Gly Trp
       35
                          40
Phe Ser
   50
<210> 1542
<211> 45
<212> PRT
<213> Homo sapiens
<400> 1542
Asp Phe Phe Leu Asn Ile Ser Glu Phe Glu Gly Asn Thr Asp Arg Phe
Leu Pro Ser Ser Leu Pro Ile Thr His Leu Ser Asp Asn Thr Leu Leu
Ile Glu Glu Val Ile Arg Ile Ile Phe Lys Phe Gln Ile
                         40
<210> 1543
<211> 239
<212> PRT
<213> Homo sapiens
<400> 1543
Ile Ala Leu Pro Pro Ser Phe Gln Pro Gln Ser Asp Gly Arg Gly Asp
1 5
```

Ala Ser Gly Arg Asn Ala Ala Met Ala Ala Gln Gly Glu Pro Gln Val $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Gln Phe Lys Leu Val Leu Val Gly Asp Gly Gly Thr Gly Lys Thr Thr 35 40 45

Phe Val Lys Arg His Leu Thr Gly Glu Phe Glu Lys Lys Tyr Val Ala $50 \hspace{1cm} 55 \hspace{1cm} 60$

Thr Leu Gly Val Glu Val His Pro Leu Val Phe His Thr Asn Arg Gly 65 7075 75

Pro Ile Lys Phe Asn Val Trp Asp Thr Ala Gly Gln Glu Lys Phe Gly 85 90 95

Gly Leu Arg Asp Gly Tyr Tyr Ile Gln Ala Gln Cys Ala Ile Ile Met 100 \$105\$

Phe Asp Val Thr Ser Arg Val Thr Tyr Lys Asn Val Pro Asn Trp His $115 \ 120 \ 120 \ 125$

Arg Asp Leu Val Arg Val Cys Glu Asn Ile Pro Ile Val Leu Cys Gly 130 \$135\$

Asn Lys Val Asp Ile Lys Asp Arg Lys Val Lys Ala Lys Ser Ile Val 145 150 150 160

Phe His Arg Lys Lys Asn Leu Gln Tyr Tyr Asp Ile Ser Ala Lys Ser 165 170 175

Asn Tyr Asn Phe Glu Lys Pro Phe Leu Trp Leu Ala Arg Lys Leu Ile 180 185 190

Gly Asp Pro Asn Leu Glu Phe Val Ala Met Pro Ala Leu Ala Pro Pro 195 200 205

Glu Val Val Met Asp Pro Ala Leu Ala Ala Gln Tyr Glu His Asp Leu 210 215 220

Glu Val Ala Gln Thr Thr Ala Leu Pro Asp Glu Asp Asp Asp Leu 225 \$230\$

<210> 1544

<211> 109

<212> PRT

<213> Homo sapiens

<400> 1544

Val Val Thr Gly Ser Gly Ser Trp His Gln Val Ala Ser Ile Ile Arg 1 5 10 15

Ser Leu Thr Glu Asp Asn Met Gln Asn Ser His Met Asp Glu Tyr Arg \$20\$

Asn Ser Ser Asn Gly Ser Thr Gly Asn Ser Ser Glu Val Val Glu \$35\$ \$40\$ \$45\$

Gln Ser Pro Asp Asp Ser Pro Asn Val Asn Ala Ser Thr Glu Glu Thr 65 70 75 80

Glu Met Ala Ser Ala Val Asp Leu Pro Val Thr Leu Thr Glu Thr Glu 85 \$90\$

Ala Ile Ser Leu Gln Asn Met Lys Asn Phe Gly Lys Leu 100 105

<210> 1545 <211> 199

<212> PRT <213> Homo sapiens

<400> 1545

Thr His Ala Ser Gly Pro Thr arg Pro Gly Lys Met Ala Leu Ala Met $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Val Leu Val Val Ser Pro Trp Ser Ala Ala Arg Gly Val Leu Arg 20 25 30

Asn Tyr Trp Glu Arg Leu Leu Arg Lys Leu Pro Gln Ser Arg Pro Gly $35 \hspace{1cm} 40 \hspace{1cm} 45$

Phe Pro Ser Pro Pro Trp Gly Pro Ala Leu Ala Val Gln Gly Pro Ala 50 \$55\$

Met Phe Thr Glu Pro Ala Asn Asp Thr Ser Gly Ser Lys Glu Asn Ser 65 70 75 80

Ser Leu Leu Asp Ser Ile Phe Trp Met Ala Ala Pro Lys Asn Arg Arg 85 90 95

Thr Ile Glu Val Asn Arg Cys Arg Arg Arg Asn Pro Gln Lys Leu Ile 100 105 110

Lys Val Lys Asn Asn Ile Asp Val Cys Pro Glu Cys Gly His Leu Lys

115 120 125

Gln Lys His Val Leu Cys Ala Tyr Cys Tyr Glu Lys Val Cys Lys Glu 130 135 140

Thr Ala Glu Ile Arg Arg Gln Ile Gly Lys Gln Glu Gly Gly Pro Phe 145 \$150\$

Lys Ala Pro Thr Ile Glu Thr Val Val Leu Tyr Thr Gly Glu Thr Pro \$165\$ \$170\$

Ser Glu Gln Asp Gln Gly Lys Arg Ile Ile Glu Arg Asp Arg Lys Arg 180 \$185\$

Pro Ser Trp Phe Thr Gln Asn 195

<210> 1546

<211> 163

<212> PRT

<213> Homo sapiens

<400> 1546

Pro Thr Arg Pro Pro Thr Arg Pro Arg Arg Trp Arg Arg Arg Thr Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Pro Glu Arg Ala Gly Ala Met Ser Ala Ala Arg Pro Gln Phe Ser Ile $20 \hspace{1cm} 25 \hspace{1cm} 30$

Asp Asp Ala Phe Glu Leu Ser Leu Glu Asp Gly Gly Pro Gly Pro Glu $35 \ \ 40 \ \ 45$

Ser Ser Gly Val Ala Arg Phe Gly Pro Leu His Phe Glu Arg Arg Ala $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60$

Arg Phe Glu Val Ala Asp Glu Asp Lys Gln Ser Arg Leu Arg Tyr Gln 65 70 75 80

Asn Leu Glu Asn Asp Glu Asp Gly Ala Gln Ala Ser Pro Glu Pro Asp $85 \hspace{1cm} 90 \hspace{1cm} 95$

Gly Gly Val Gly Thr Arg Leu Gly Pro Gly Ile Pro Ala Glu Leu Pro 100 105 110

Pro Gly Leu Pro Val Leu Leu Pro Ala Leu Leu Arg Glu Val Ile Ala 115 120 125

Ala Gln Arg Gly Pro Leu Ala Pro Met Gly Ala Pro Leu Leu Pro Cys 130 $$135\$

Ser Val Pro Leu Ile Ser Arg Glu Glu Ala Leu Gln Asp Pro Arg Asn 145 150 160

Pro Ser Pro

<210> 1547 <211> 176

<212> PRT

<213> Homo sapiens

<400> 1547

Ser Thr His Ala Ser Ala His Ala Ser Gly Pro Val Pro Ser Ala Ala 1 5 10 15

Ser Ser Ala Gly Gly Ser Gly Gly Leu Ser Phe Arg Ala Ala Ser Ser 20 25 30

Leu Pro Val Ser Pro Ser Leu Ala Val Ser Met Lys Ala Phe Ser Pro $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm}$

Val Arg Ser Val Arg Lys Asn Ser Leu Ser Asp His Ser Leu Gly Ile 50 55 60

Ser Arg Ser Lys Thr Pro Val Asp Asp Pro Met Ser Leu Leu Tyr Asn 65 70 75 80

Met Asn Asp Cys Tyr Ser Lys Leu Lys Glu Leu Val Pro Ser Ile Pro 85 90 95

Gln Asn Lys Val Ser Lys Met Glu Ile Leu Gln His Val Ile Asp \$100\$ 100 \$105

Tyr Ile Leu Asp Leu Gln Ile Ala Leu Asp Ser His Pro Thr Ile Val \$115\$ \$120\$ \$125\$

Ser Leu His His Gln Arg Pro Gly Gln Asn Gln Ala Ser Arg Thr Pro 130 135 140

Leu Thr Thr Leu Asn Thr Asp Ile Ser Ile Leu Ser Leu Gln Ala Ser 145 \$150\$

Glu Phe Pro Ser Glu Leu Met Ser Asn Asp Ser Lys Ala Leu Cys Gly 165 170 175

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<210> 1548
<211> 69
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
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<222> (59)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 1548
Lys Lys Ser Leu Arg Cys Glu Tyr Arg Ile Asp Ile Glu Arg Leu Tyr
                                     10
Met Ser Lys Thr His Leu Ser Ser Ser His Arg Pro Leu Gln Ser Gly
His Val Gly Gln Xaa Gly Thr Gly Ala Gly Asp Ala Pro Pro Gly Gln
         35
                             40
                                                 45
Asn Ala Pro Phe Val Ala Leu Pro Asp Thr Xaa Tyr Leu Leu Xaa Lys
Arg Glu Thr Glv Ser
65
<210> 1549
<211> 41
<212> PRT
<213> Homo sapiens
<400> 1549
Ile Leu Leu Tyr Lys His Phe His Ile Leu Pro Leu His Leu Thr Ile
Gln His Lys Gln Leu Leu Met Ala Leu Arg Ile Val Cys Thr Cys Asn
                                 25
            20
```

Phe Glu Trp Leu Tyr Ala Val Ser Ser 35 40

<210> 1550

<211> 61

<211> 01 <212> PRT

<213> Homo sapiens

<400> 1550

Phe Phe Ala Pro Leu Lys Pro Val Arg Ile Thr Met Glu Tyr Ser Ser 1 5 10 15

Ser Gly Lys Ala Thr Gly Glu Ala Asp Val His Phe Glu Thr His Glu 20 25 30

Asp Ala Val Ala Ala Met Leu Lys Asp Arg Ser His Val His His Arg \$35\$ \$40\$ \$45\$

Tyr Ile Glu Leu Phe Leu Asn Ser Cys Pro Lys Gly Lys 50 55 60

<210> 1551

<211> 114

<212> PRT

<213> Homo sapiens

<400> 1551

Gly Ser Leu Ala Ser Phe Leu Ala Cys Ser Ser Glu Phe Phe Gln Pro 1 $$ 5 $$ 10 $$ 15

Pro Pro Thr Ala Gln Phe Gln Ser His Phe Ser Thr Phe Arg Tyr Leu $20 \\ 25 \\ 30$

Leu Gln Gln His Leu Lys Tyr Leu Glu Asn Ser Phe Met Pro Ala Ser 35 40 45

Leu Pro Asp Asp Leu Asn Met Val Leu Asp Leu Glu Phe Thr Phe Leu $50 \hspace{1.5cm} 55 \hspace{1.5cm} 60 \hspace{1.5cm}$

Gln Gly His Cys Leu Phe Gln Arg Gly Glu Phe Thr Cys Ala Arg Val 65 70 75 80

Phe Thr Leu Gly Val Leu Pro Glu Leu Pro Gln Asp Glu Ser Gly Glu 85 90 95

Pro Thr Thr Ala Glu Lys Phe Ser Gln Cys Arg Asn Ile Glu Glu Phe

100 105 110

Ser Lys

<210> 1552

<211> 450

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (185)

<223> Xaa equals any of the naturally occurring L-amino acids

<220> <221> SITE

<221> SITE <222> (200)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (414)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (420)

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<220>

<221> SITE

<222> (429)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (442)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1552

Thr Gly Cys Gly Lys Thr Thr Gln Val Thr Gln Phe Ile Leu Asp Asn $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Tyr Ile Glu Arg Gly Lys Gly Ser Ala Cys Arg Ile Val Cys Thr Gln 20 25 30

Pro Arg Arg Ile Ser Ala Ile Ser Val Ala Glu Arg Val Ala Ala Glu
35 40 45

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Arg	Ala 50	GIU	ser	cys	GIY	55	GIŸ	Asn	ser	rnr	60 60	Tyr	GIN	IIe	Arg
Leu 65	Gln	Ser	Arg	Leu	Pro 70	Arg	Lys	Gln	Gly	Ser 75	Ile	Leu	Tyr	Cys	Thr 80
Thr	Gly	Ile	Ile	Leu 85	Gln	Trp	Leu	Gln	Ser 90	Asp	Pro	Tyr	Leu	ser 95	Ser
Val	Ser	His	Ile 100	Val	Leu	Asp	Glu	11e 105	His	Glu	Arg	Asn	Leu 110	Gln	Ser
Asp	Val	Leu 115	Met	Thr	Val	Val	Lys 120	Asp	Leu	Leu	Asn	Phe 125	Arg	Ser	Asp
Leu	Lys 130	Val	Ile	Leu	Met	Ser 135	Ala	Thr	Leu	Asn	Ala 140	Glu	Lys	Phe	Ser
Glu 1 4 5	Tyr	Phe	Gly	Asn	Cys 150	Pro	Met	Ile	His	11e 155	Pro	Gly	Phe	Thr	Phe 160
Pro	Val	Val	Glu	Tyr 165	Leu	Leu	Glu	Asp	Val 170	Ile	Glu	Lys	Ile	Arg 175	Tyr
Val	Pro	Glu	Gln 180	Lys	Glu	His	Arg	Xaa 185	Gln	Phe	Lys	Arg	Gly 190	Phe	Met
Gln	Gly	His 195	Val	Asn	Arg	Gln	Xaa 200	Lys	Glu	Glu	Lys	Glu 205	Ala	Ile	Tyr
Lys	Glu 210	Arg	Trp	Pro	Asp	Tyr 215	Val	Arg	Glu	Leu	Arg 220	Arg	Arg	Tyr	Ser
Ala 225	Ser	Thr	Val	Asp	Val 230	Ile	Glu	Met	Met	G1u 235	Asp	Asp	Lys	Val	Asp 240
Leu	Asn	Leu	Ile	Val 245	Ala	Leu	Ile	Arg	Tyr 250	Ile	Val	Leu	Glu	Glu 255	Glu
Asp	Gly	Ala	11e 260	Leu	Val	Phe	Leu	Pro 265	Gly	Trp	Asp	Asn	11e 270	Ser	Thr
Leu	His	Asp 275	Leu	Leu	Met	Ser	Gln 280	Val	Met	Phe	Lys	ser 285	Asp	Lys	Phe
Leu	Ile 290	Ile	Pro	Leu	His	Ser 295	Leu	Met	Pro	Thr	Val 300	Asn	Gln	Thr	Gln
Val 305	Phe	Lys	Arg	Thr	Pro 310	Pro	Gly	Val	Arg	Lys 315	Ile	Val	Ile	Ala	Thr 320

Asn Ile Ala Glu Thr Ser Ile Thr Ile Asp Asp Val Val Tyr Val Ile Asp Gly Gly Lys Ile Lys Glu Thr His Phe Asp Thr Gln Asn Asn Ile 340 345 Ser Thr Met Ser Ala Glu Trp Val Ser Lys Ala Asn Ala Lys Gln Arg 360 Lys Gly Arg Ala Gly Arg Val Gln Pro Gly His Cys Tyr His Leu Tyr 375 Asn Gly Leu Arg Ala Ser Leu Leu Asp Asp Tyr Gln Leu Pro Glu Ile 385 390 395 Leu Arg Thr Pro Leu Glu Glu Leu Cys Leu Gln Ile Lys Xaa Phe Lys 405 410 Ala Arg Trp Xaa Cys Leu Phe Leu Ser Arg Leu Met Xaa Pro Pro Ser 425 Asn Glu Ala Val Leu Leu Ser Ile Arg Xaa Leu Met Glu Leu Glu Arg 435 440 445 Phe Gly 450 <210> 1553 <211> 446 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (64) <223> Xaa equals any of the naturally occurring L-amino acids <220>

<223> Xaa equals any of the naturally occurring L-amino acids

<221> SITE <222> (99)

<400> 1553

Glu 1	Leu	Leu	Ala	Val	Val	Gly	Pro	Val	Gly 10		Gly	Lys	Ser	Ser 15	Leu
Leu	Ser	Ala	Val 20	Leu	Gly	Glu	Leu	A1a 25		Ser	His	Gly	Leu 30	Val	ser
Val	His	Gly 35		Ile	Ala	Tyr	Val 40	Ser	Gln	Gln	Pro	Trp 45	Val	Phe	Ser
Gly	Thr 50	Leu	Arg	Ser	Asn	Ile 55	Leu	Phe	Gly	Lys	Lys 60	Xaa	Glu	Lys	Xaa
Arg 65	Tyr	Glu	Lys	Val	Ile 70	Lys	Ala	Cys	Ala	Leu 75	Lys	Lys	Asp	Leu	Gln 80
Leu	Leu	Glu	Asp	Gly 85	Asp	Leu	Thr	Val	Ile 90	Gly	Asp	Arg	Gly	Thr 95	Thr
Leu	Ser	Xaa	Gly 100	Gln	Lys	Ala	Arg	Val 105	Asn	Leu	Ala	Arg	Ala 110	Val	Tyr
Gln	Asp	Ala 115	Asp	Ile	Tyr	Leu	Leu 120	Asp	Asp	Pro	Leu	Ser 125	Ala	Val	Asp
Ala	Glu 130	Val	Ser	Arg	His	Leu 135	Phe	Glu	Leu	Cys	11e 140	Cys	Gln	Ile	Leu
His 145	Glu	Lys	Ile	Thr	11e 150	Leu	Val	Thr	His	G1n 155	Leu	Gln	Tyr	Leu	Lys 160
Ala	Ala	Ser	Gln	11e 165	Leu	Ile	Leu	Lys	Asp 170	Gly	Lys	Met	Val	G1n 175	Lys
Gly	Thr	Tyr	Thr 180	Glu	Phe	Leu	Lys	Ser 185	Gly	Ile	Asp	Phe	Gly 190	Ser	Leu
Leu	Lys	Lys 195	Asp	Asn	Glu	Glu	Ser 200	Glu	Gln	Pro	Pro	Val 205	Pro	Gly	Thr
Pro	Thr 210	Leu	Arg	Asn	Arg	Thr 215	Phe	Ser	Glu	Ser	Ser 220	Val	Trp	Ser	Gln
Gln 225	Ser	Ser	Arg	Pro	Ser 230	Leu	Lys	Asp	Gly	Ala 235	Leu	Glu	ser	Gln	Asp 240
Thr	Glu	Asn	Val	Pro 245	Val	Thr	Leu	Ser	Glu 250	Glu	Asn	Arg	Ser	G1u 255	Gly
Lys	Val	Gly	Phe	Gln	Ala	Tyr	Lys	Asn	Tyr	Phe	Arg	Ala	Gly	Ala	His

Trp Ile Val Phe Ile Phe Leu Ile Leu Leu Asn Thr Ala Ala Gln Val 275 280 285

Ala Tyr Val Leu Gln Asp Trp Trp Leu Ser Tyr Trp Ala Asn Lys Gln 290 295 300

Ser Met Leu Asn Val Thr Val Asn Gly Gly Gly Asn Val Thr Glu Lys 305 310315315 320

Leu Asp Leu Asn Trp Tyr Leu Gly Ile Tyr Ser Gly Leu Thr Val Ala $325 \hspace{1.5cm} 330 \hspace{1.5cm} 335$

Thr Val Leu Phe Gly Ile Ala Arg Ser Leu Leu Val Phe Tyr Val Leu 340 350

Val Asn Ser Ser Gln Thr Leu His Asn Lys Met Phe Glu Ser Ile Leu 355 360 365

Lys Ala Pro Val Leu Phe Phe Asp Arg Asn Pro Ile Gly Arg Ile Leu $370 \hspace{1cm} 375 \hspace{1cm} 380$

Asn Arg Phe Ser Lys Asp Ile Gly His Leu Asp Asp Leu Leu Pro Leu 385 390 395

Thr Phe Leu Asp Phe Ile Gln Val Thr Leu Arg Val Met Ser Gly Ser 405 405

Gln Met Glu Asn Gly Ser Ser Tyr Phe Phe Lys Pro Phe Ser Trp Gly $420 \hspace{1.5cm} 425 \hspace{1.5cm} 430$

Leu Gly Val Gly Leu Ser Ala Trp Leu Cys Val Met Leu Thr 435 440 445

<210> 1554

<211> 446

<212> PRT

<213> Homo sapiens

<400> 1554

Arg Lys Cys Glu Leu Ala His Cys Ser Leu Gly Val Phe Gly Val Arg $1 \ \ \,$ 10 $15 \ \ \,$

Met Ala Leu Glu Gly Met Ser Lys Arg Lys Arg Lys Arg Ser Val Gln 20 25 30

Glu Gly Glu Asn Pro Asp Asp Gly Val Arg Gly Ser Pro Pro Glu Asp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Tyr Arg Leu Gly Gln Val Ala Ser Ser Leu Phe Arg Gly Glu His His

50 55 60 Ser Arg Gly Gly Thr Gly Arg Leu Ala Ser Leu Phe Ser Ser Leu Glu 7.0 75 Pro Gln Ile Gln Pro Val Tyr Val Pro Val Pro Lys Gln Thr Ile Lys Lys Thr Lys Arq Asn Glu Glu Glu Glu Ser Thr Ser Gln Ile Glu Arq 105 Pro Leu Ser Gln Glu Pro Ala Lys Lys Val Lys Ala Lys Lys His Thr Asn Ala Glu Lvs Lvs Leu Ala Asp Arg Glu Ser Ala Leu Ala Ser 135 140 Ala Asp Leu Glu Glu Glu Ile His Gln Lys Gln Gly Gln Lys Arg Lys 155 Asn Ser Gln Pro Gly Val Lys Val Ala Asp Arg Lys Ile Leu Asp Asp 165 170 Thr Glu Asp Thr Val Val Ser Gln Arg Lys Lys Ile Gln Ile Asn Gln Glu Glu Glu Arg Leu Lys Asn Glu Arg Thr Val Phe Val Gly Asn Leu 200 Pro Val Thr Cys Asn Lys Lys Lys Leu Lys Ser Phe Phe Lys Glu Tyr 210 215 Gly Gln Ile Glu Ser Val Arg Phe Arg Ser Leu Ile Pro Ala Glu Gly 225 235 230 Thr Leu Ser Lys Lys Leu Ala Ala Ile Lys Arg Lys Ile His Pro Asp Gln Lys Asn Ile Asn Ala Tyr Val Val Phe Lys Glu Glu Ser Ala Ala 260 265 270 Thr Gln Ala Leu Lys Arg Asn Gly Ala Gln Ile Ala Asp Gly Phe Arg Ile Arg Val Asp Leu Ala Ser Glu Thr Ser Ser Arg Asp Lys Arg Ser 295 Val Phe Val Gly Asn Leu Pro Tyr Lys Val Glu Glu Ser Ala Ile Glu 305 310 315

Lys His Phe Leu Asp Cys Gly Ser Ile Met Ala Val Arg Ile Val Arg

325 330 335 Asp Lys Met Thr Gly Ile Gly Lys Gly Phe Gly Tyr Val Leu Phe Glu 340 345 Asn Thr Asp Ser Val His Leu Ala Leu Lys Leu Asn Asn Ser Glu Leu 360 Met Gly Arg Lys Leu Arg Val Met Arg Ser Val Asn Lys Glu Lys Phe 370 375 Lys Gln Gln Asn Ser Asn Pro Arg Leu Lys Asn Val Ser Lys Pro Lys 390 Gln Gly Leu Asn Phe Thr Ser Lys Thr Ala Glu Gly His Pro Lys Ser 405 410 Leu Phe Ile Gly Glu Lys Ala Val Leu Leu Lys Thr Lys Lys Gly Gln Lys Lys Ser Gly Arg Pro Lys Lys Gln Arg Lys Gln Lys 435 440 <210> 1555 <211> 115 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (3) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (19) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (51) <223> Xaa equals any of the naturally occurring L-amino acids

Ala Thr Xaa Val Gln His Gln Arg Ile His Thr Gly Glu Arg Pro Tyr Glu Cys Xaa Glu Cys Gly Lys Thr Phe Ser Arg Lys Asp Asn Leu Thr 20 25

10

<400> 1555

Gln His Lys Arg Ile His Thr Gly Glu Met Pro Tyr Lys Cys Asn Glu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Gly Xaa Tyr Phe Ser His His Ser Asn Leu Ile Val His Gln Arg

Val His Asn Gly Ala Arg Pro Tyr Lys Cys Ser Asp Cys Gly Lys Val 65 70 75 80

Phe Arg His Lys Ser Thr Leu Val Gln His Glu Ser Ile His Thr Gly \$85\$ 90 95

Glu Asn Pro Tyr Val Ala Val Leu Trp Glu Ile Leu Trp Pro Gln Ile 100 105 110

His Pro His

<210> 1556

<211> 81

<212> PRT

<213> Homo sapiens

<400> 1556

Cys Gly Lys Thr Ala Ile Arg Lys Arg Lys Tyr Arg Ser Leu Asn Asn 1 1 5 10 15

Leu Trp Val Arg Lys Ala Ser Leu Asn Asn Gln Lys Leu Ala Val Leu $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Ala Leu Phe Ser Ser Leu Phe Met Lys Met Lys Ser Glu Ile Thr Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Lys Pro Gly Asn Ile Ile Leu Val Leu Leu Ser Trp Ile His Val 50 55 60

Lys Lys Arg Leu His Ser Leu Leu Met Leu Pro Thr Ser Cys Gly Phe 65 70 75 80

Val

<210> 1557

<211> 398

<212> PRT

<213> Homo sapiens

< 40	0> 1	557													
Phe 1	Arg	Glu	Met	Val 5	Ser	Ser	Ser	Asn	Leu 10	Pro	Gln	Gly	Trp	Leu 15	Glu
Val	Gln	Gly	Ile 20	Pro	Glu	Gly	Trp	Asp 25	Gly	Val	Ala	Gly	Trp 30		Leu
Pro	Gly	Ile 35	Asn	Pro	Gly	Arg	Thr 40	Ala	Arg	Arg	Phe	Ala 45	Tyr	Leu	Phe
Val	Asn 50	Ile	Asn	Val	Thr	Ser 55	Glu	Pro	His	Glu	Val 60	Leu	Ala	Leu	Trp
Phe 65	Leu	Trp	Tyr	Val	Lys 70	Gln	Суз	Gly	Gly	Thr 75	Thr	Arg	Ile	Phe	ser 80
Val	Thr	Asn	Gly	Gly 85	Gln	Glu	Arg	Lys	Phe 90	Val	Gly	Gly	Ser	Gly 95	Gln
Val	Ser	Glu	Arg 100	Ile	Met	Asp	Leu	Leu 105	Gly	Asp	Gln	Val	Lys 110	Leu	Asn
His	Pro	Val 115	Thr	His	Val	Asp	Gln 120	Ser	Ser	Asp	Asn	11e 125	Ile	Ile	Glu
Thr	Leu 130	Asn	His	Glu	His	Туг 135	Glu	Суз	Lys	Tyr	Val 140	Ile	Asn	Ala	Ile
Pro 145	Pro	Thr	Leu	Thr	Ala 150	Lys	Ile	His	Phe	Arg 155	Pro	Glu	Leu	Pro	Ala 160
Glu	Arg	Asn	Gln	Leu 165	Ile	Gln	Arg	Leu	Pro 170	Met	Gly	Ala	Val	11e 175	Lys
суз	Met	Met	Tyr 180	Tyr	Lys	Glu	Ala	Phe 185	Trp	Lys	Lys	Lys	Asp 190	Tyr	Cys
Gly	Cys	Met 195	Ile	Ile	Glu	Asp	Glu 200	Asp	Ala	Pro	Ile	Ser 205	Ile	Thr	Leu
Asp	Asp 210	Thr	Lys	Pro	Asp	Gly 215	ser	Leu	Pro	Ala	Ile 220	Met	Gly	Phe	Ile
Leu 225	Ala	Arg	Lys	Ala	Asp 230	Arg	Leu	Ala	Lys	Leu 235	His	Lys	Glu	Ile	Arg 240
Lys	Lys	Lys	Ile	Cys 245	Glu	Leu	Tyr	Ala	Lys 250	Val	Leu	Gly	Ser	Gln 255	Glu

Ala Leu His Pro Val His Tyr Glu Glu Lys Asn Trp Cys Glu Glu Gln

260 265 270

Tyr Ser Gly Gly Cys Tyr Thr Ala Tyr Phe Pro Pro Gly Ile Met Thr 275 280 285

Gln Tyr Gly Arg Val Ile Arg Gln Pro Val Gly Arg Ile Phe Phe Ala

290 295 300

Gly Thr Glu Thr Ala Thr Lys Trp Ser Gly Tyr Met Glu Gly Ala Val

305 310 315 320

Glu Ala Gly Glu Arg Ala Ala Arg Glu Val Leu Asn Gly Leu Gly Lys $325 \hspace{1cm} 330 \hspace{1cm} 335$

Val Thr Glu Lys Asp Ile Trp Val Glu Pro Glu Ser Lys Asp Val 340 345 350

Pro Ala Val Glu Ile Thr His Thr Phe Trp Glu Arg Asn Leu Pro Ser 355 360 365

Val Ser Gly Leu Leu Lys Ile Ile Gly Phe Ser Thr Ser Val Thr Ala 370 375 380

Leu Gly Phe Val Leu Tyr Lys Tyr Lys Leu Leu Pro Arg Ser 385 390 395

<210> 1558

<211> 401

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 1558

Ser Leu Ala Ala Pro Gly Ile Pro Glu His Arg Gln Arg Gly Thr Glu

Lys Glu Ser Phe Phe Leu Gly Ser Gln Ser Arg Lys Gly Gly Ala Ala 20 25 30

Leu Ala Pro Ser Ala Gly Pro Ala Pro Arg Met Arg Ala Asp Ala Gly 35 40 45

Gly Arg Gly Cys Gly Ser Ala Asn Gly Xaa Pro Gly Ala Pro His Val 50 60